

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 45

1. CONTRACT/PURCH. ORDER/ AGREEMENT NO. W912DW-04-P-0075				2. DELIVERY ORDER/ CALL NO. W912DW		3. DATE OF ORDER/CALL 2004 Jan 14		4. REQ./ PURCH. REQUEST NO. W68MD9-3323-5779		5. PRIORITY									
6. ISSUED BY USA ENGINEER DISTRICT, SEATTLE ATTN: CENWS-CT 4735 EAST MARGINAL WAY SOUTH SEATTLE WA 98134-2329				7. ADMINISTERED BY USA ENGINEER DISTRICT, SEATTLE SCOTT BRITT PH:206-764-3517 FAX: 206-764-6817 SCOTT.W.BRITT@US.ARMY.MIL SEATTLE WA		8. DELIVERY FOB <input checked="" type="checkbox"/> DEST <input type="checkbox"/> OTHER (See Schedule if other)													
9. CONTRACTOR TRIPLE TREE, INC ROBERT S. GREIL 6205 PINE GROVE LANE MISSOULA MT 59802-9532				10. DELIVER TO FOB POINT BY (Date) SEE SCHEDULE		11. MARK IF BUSINESS IS <input checked="" type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input checked="" type="checkbox"/> WOMEN-OWNED		12. DISCOUNT TERMS											
				13. MAIL INVOICES TO THE ADDRESS IN BLOCK See Item 15															
14. SHIP TO SEE SCHEDULE FOR FURTHER INFORMATION. US ARMY CORPS OF ENGRS SEATTLE WA 98124-3755				15. PAYMENT WILL BE MADE BY US ARMY CORPS OF ENGRS FINANCE CENTER CEFC-AO-P 901-874-8556 5722 INTEGRITY DRIVE MILLINGTON TN 38054-5005				MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.											
16. TYPE OF ORDER		DELIVERY/ CALL		This delivery order/call is issued on another Govt. agency or in accordance with and subject to terms and conditions of above numbered contract.															
PURCHASE		<input checked="" type="checkbox"/>		Reference your quote dated 09-Jan-2004 Furnish the following on terms specified herein. REF:															
<p>ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED. SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.</p> <table style="width:100%;"> <tr> <td>NAME OF CONTRACTOR</td> <td>SIGNATURE</td> <td>TYPED NAME AND TITLE</td> <td>DATE SIGNED (YYYYMMDD)</td> </tr> <tr> <td><input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:</td> <td></td> <td></td> <td></td> </tr> </table>												NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYYYMMDD)	<input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:			
NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYYYMMDD)																
<input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:																			
17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE																			
See Schedule																			
18. ITEM NO.		19. SCHEDULE OF SUPPLIES/ SERVICES				20. QUANTITY ORDERED/ ACCEPTED*		21. UNIT		22. UNIT PRICE		23. AMOUNT							
		SEE SCHEDULE																	
24. UNITED STATES OF AMERICA TEL: (206) 764-6696 EMAIL: sharon.j.gonzalez@usace.army.mil BY: SHARON GONZALEZ						25. TOTAL \$70,460.00 29. DIFFERENCES													
26. QUANTITY IN COLUMN 20 HAS BEEN <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED DATE SIGNATURE OF AUTHORIZED GOVT. REP.						27. SHIP NO. <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		28. DO VOUCHER NO. 32. PAID BY		30. INITIALS 33. AMOUNT VERIFIED CORRECT FOR									
36. I certify this account is correct and proper for payment. DATE SIGNATURE AND TITLE OF CERTIFYING OFFICER						31. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL				34. CHECK NUMBER									
										35. BILL OF LADING NO.									
37. RECEIVED AT		38. RECEIVED BY		39. DATE RECEIVED (YYYYMMDD)		40. TOTAL CONTAINERS		41. S/R ACCOUNT NO.		42. S/R VOUCHER NO.									

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Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	BEAVER CREEK BRIDGE PROJECT CONSTRUCTION FFP Provide all supplies, services, and labor necessary to complete Beaver Creek Bridge Project Construction at Helena Ranger District in Helena, Montana in accordance with the incorporated Statement of Work, Specifications, Drawings, and Wagerates. Partial payments are authorized - submit invoices to the address in Block 15 of the DD Form 1155. Notice to Proceed will be granted to the awarded Contractor upon receipt of payment bond for 100% of the awarded contract amount. Award is to be made pursuant to the Small Business Competitiveness Demonstration Program. PURCHASE REQUEST NUMBER: W68MD9-3323-5779	1	Lump Sum	\$70,460.00	\$70,460.00
					<hr/>
				NET AMT	\$70,460.00
ACRN AA Funded Amount					\$70,460.00

FOB: Destination

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SCHEDULE

Item	Description	Method Meas	Unit	Quantity	Unit Cost	Cost
175(06)	Staking Major Structures, Type Bridge, Precision A	AQ	EA	1	2200.00	2200.00
202(05)	Removal of Existing Timber Bridge	LSQ	LS	1	1820.00	1820.00
203(11)	Embankment, Placement Method 3	DQ	CY	404	6.75	1227.00
204(05)	Straw/Hay Bales	AQ	EA	30	6.50	195.00
204(19)	Soil Erosion & Pollution Control	LSQ	LS	1	1000.00	1000.00
206(07)	Structural Excavation	LSQ	LS	1	1900.00	1900.00
251(01)	Placed Riprap, Class 5 Method A	DQ	CY	150	19.00	2850.00
260(01)	Geocell Abutment Stabilization 6" Depth	DQ	SY	43	64.00	2752.00
304(10)	Crushed Aggregate, Type Surfacing Grading G Compaction B	AQ	CY	65	41.00	2665.00
552(01)	Structural Concrete Class A(AE)	DQ	CY	11	414.00	4554.00
554(03)	Reinforcing Steel	LSQ	LS	1	220.00	220.00
560(01)	Bridge Superstructure	LSQ	LS	1	34,755.00	34,755.00
601(01)	Mobilization (Including Temp Bypass Bridge)	LSQ	LS	1	11,110.00	11,110.00
633(01)	Wood Posts	AQ	LF	32	6.00	192.00
633(17)	Object Markers	AQ	EA	4	80.00	320.00
637(01)	Hydraulic Excavator With Thumb Minimum 150 Flywheel HP AQ	HR	16	75.00		1200.00

Total Construction Costs = \$70,460.00 LS

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Section C - Descriptions and Specifications

STATEMENT OF WORK

SECTION 01000
STATEMENT OF WORK
BEAVER CREEK BRIDGE - 138-11.0
HELENA RANGER DISTRICT
HELENA, MONTANA
(LEWIS & CLARK COUNTY)

12 DECEMBER 2003

- A. **DESCRIPTION OF WORK:** This project is for the removal and replacement of the existing treated timber bridge over Beaver Creek. The superstructure for the replacement bridge is to be a Glu-Lam deck on steel or wood stringers on a concrete grade beam substructure with geocell abutment stabilization. The work includes but is not limited to removal and disposal of an existing treated timber bridge, excavation, riprap, construction approach roadways, foundations, installation and removal of a temporary bridge, the bridge superstructure and all other incidental items necessary to complete the project in accordance with the plans and specifications. During construction, a temporary bypass bridge will be required to maintain traffic in the location designated on the plan and profile sheet. Work within the stream channel will not be allowed to begin prior to July 1, and must be completed prior to October 10, 2004. The project is located approximately 11 miles Northwest of Hauser Dam in the Helena National Forest in Section 27, Township 13 North, Range 1 West, Lewis and Clark County, Montana.

B. **DRAWINGS & SPECIFICATIONS**

Title Sheet

Sheet 1 of 11 - PLAN & PROFILE

Sheet 2 of 11 - GENERAL LAYOUT

Sheet 3 of 11 - ABUTMENT DETAILS

Sheet 4 of 11 - TYPICAL SECTION & ESTIATED QUANTITIES

Sheet 5 of 11 - STEEL / TIMBER STRUCTURE DETAILS

Sheet 6 of 11 - TIMBER ALTERNATIVE TYPICAL SECTION & EST. QUANTITY

Sheet 7 of 11 - TIMBER ALTERNATIVE STEEL STRUCTURE DETAIL

Sheet 8 of 11 - CURB DETAILS

Sheet 9 of 11 - FIELD SPLICE DETIALS

Sheet 10 of 11 - ROAD X-SECTION DETAILS

Sheet 11 of 11 - BORROW SITE DETAIL

Special Project Specification – 96 SPS 101- Abbreviations, Acronyms, & Terms

Special Project Specification – 96 SPS 102 - Definitions

Special Project Specification – 96 SPS 103 - Intent of Contract

Special Project Specification – 96 SPS 104 - Maintenance of Traffic

Special Project Specification – 96 SPS 105 - Control of Materials

Special Project Specification – 96 SPS 106 - Measurement & Payment

Special Project Specification – 96 SPS 160 - Quality Control & Quantity Measurement

Special Project Specification – 96 SPS 175 - Construction Staking

Special Project Specification – 96 SPS 204 - Soil Erosion & Water Pollution Control

Special Project Specification – 96 SPS 206 - Structural Excavation for Major Structures

Special Project Specification – 96 SPS 251 - Riprap

Special Project Specification – 96 SPS 260 - Geocell Abutment Stabilization

Special Project Specification – 96 SPS 552 - Structural Concrete

Special Project Specification – 96 SPS 555 - Steel Structures

Special Project Specification – 96 SPS 557 - Timber Structure

Special Project Specification – 96 SPS 560 - Bridge Superstructure

Special Project Specification – 96 SPS 601 - Mobilization
Special Project Specification – 96 SPS 637 - Equipment Rental
Special Project Specification – 96 SPS 703 - Aggregate
Special Project Specification – 96 SPS 726 - Geocell

1. “Forest Service Specifications for Construction of Roads & Bridges, Revised August, 1996, EM-7720-100” are included in this solicitation by reference. The requirements contained in these specifications are hereby made part of this solicitation and any resultant contract. Measurement and payment for all work in this contract will be paid for in Imperial (English) units, ie., pay units in the Schedule of Items are Imperial, converted from the corresponding Metric Pay Units in the Specifications. Also see Section 106 Special Project Specification.
2. The publication “Forest Service Specifications for Construction of Roads & Bridges, Revised August, 1996, EM-7720-100” is available for purchase from the Superintendent of Documents, US Government Printing Office (GPO), Washington, DC 20402-9328; they are also available on the internet: <http://www.gpo.gov>. The GPO stock number is ISBN 0-16-048801-X. Call (202) 512-1800 for pricing and orders.

C. CONSTRUCTION PHASING AND RESTRICTIONS

1. The following phasing and restriction related issues might affect the work.
 - a. The Contractor shall observe all local, state, and federal regulations while performing this contract. All construction shall meet or exceed applicable industry standards.
 - b. The contractor shall be responsible for obtaining any permits, approvals, or licenses (not provided by the Government) required to perform the work.
 - c. U.S. Army Corps of Engineers, Safety and Health Requirements Manual, EM 385-1-1 shall be considered a part of this contract and will be enforced as such. A site-specific safety plan shall be submitted for approval prior to the beginning of construction.
 - d. The contractor shall attend a pre-construction meeting presided by the C.O.E. Project Lead prior to commencing construction activities. The contractor shall contact the C.O.E. Project Lead within 5-days of issuance of contract NTP to establish a date and time for the pre-work meeting. The contractor shall indicate the start and finish date for each item at the pre-construction meeting.

D. CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1. A staging area shall be provided for the contractor as directed by the Project Lead.
2. Work shall be performed between the hours of 7:00 AM and 5:30 PM Monday through Friday unless the Project Lead approves an alternate work schedule.
3. The Contractor is responsible for security of his own property and security of government property when construction activities affect existing security measures.
4. Government Furnished Materials - Riprap and borrow source for Embankment (see Special Project Specification No. 105).

E. SUBMITTALS

As required in the Statement of Work and Special Project Specifications.

F. CONTRACT COMPLETION REQUIREMENTS

N/A

G. PERFORMANCE PERIOD

The Contractor shall be required to commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed and complete all work under this contract, including final cleanup of the premises, within 106 calendar days after the Notice to Proceed. Actual fieldwork must be completed within one field season within the time frame of July 1 to October 15 and the new bridge must be in operation by October 15, 2004.

H. POINTS OF CONTACT – POST AWARD

Send all correspondence to:

U.S. Army Corps of Engineers
Small Projects Office
ATTN: Nilo Bonifacio
PO Box 92146
Tillicum, WA 98429 – 0146

Project lead

Kurt A. Anderson, P.E.
Office (406) 541-4845
Cell (406) 370-6938

Quality Assurance Representative

Terry Hoffman
Office (406) 541-4845

Others to be determined

POSTSCRIPT:

ADDITIONAL INFORMATION:

Suppliers of treated timber products are Permapost, Timberworks, and McCormick. AISC Certified plants are Allied (Lewistown MT), Midwest Industries (Bozeman MT), Selway (Stevensville MT), Rosco Steel (Billings & Missoula MT). Kadrmas Lee & Jackson (Helena MT), completed the original survey, contact is Mike Wagner, 406-449-7764.

A temporary bridge is available for contractor use. The temporary bridge is located at Rimini, approximately 50 miles from the Beaver Creek site. Bridge sills are located at the Helena District Office. Awarded Contractor will be responsible for temporary bridge and sill transportation, as well as the assembly of the temporary bridge on the sills at the project site..

At the project's completion, the temporary bridge must be disassembled and returned, with the sills, to the Helena District Office

SPS 101

SECTION 101 - ABBREVIATIONS, ACRONYMS, & TERMS

101.01 Terms, Organizations, & Standards.

(a) Acronyms. Add:

BMP	Best Management Practice
EPA	Environmental Protection Association
FPL	Forest Products Laboratory
SSPC	Steel Structures Painting Council
WCLIB	West Coast Lumber Inspection Bureau
WWPA	Western Wood Products Association
USN	United States Navy
LSQ	Lump Sum Quantity

SPS 102

SECTION 102 – DEFINITIONS

Add the following:

Noxious Weeds or Weeds. Any exotic plant species established or that may be introduced in the State which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses and which is designated by the State's Department of Agriculture, or by the County's weed management district, or by other appropriate agencies having jurisdiction, or as listed on the current "All States Noxious Weed List."

Shop Drawings. Incidental design sheets and/or drawings which the Contractor is required to submit to the Government. Shop drawings shall conform to the contract requirements, but they are not part of the contract drawings. They may be drawings, diagrams, schedules, performance charts, brochures, and similar data prepared by the Contractor, subcontractor, manufacturer, suppliers, or distributors that illustrate how specific portions of the work are to be fabricated or installed.

Weed Management District. A weed management district is any area of land identified for the purpose of weed management or control. Such an identified land area may be, but is not limited to, one of the following: a project or job site, a County, two or more Counties, or a National Forest.

SPS 103

SECTION 103 – INTENT OF CONTRACT

Add the following:

This project is for the removal and replacement of the existing treated timber bridge over Beaver Creek. The superstructure for the replacement bridge is to be a Glu-Lam deck on steel or wood stringers on a concrete grade beam substructure with geocell abutment stabilization. The project is located approximately 11 miles Northwest of Hauser Dam in the Helena National Forest in Section 27, Township 13 North, Range 1 West, Lewis and Clark County, Montana.

During construction, a temporary bypass bridge will be required to maintain traffic in the location designated on the plan and profile sheet.

Work within the stream channel will not be allowed to begin prior to July 1, and must be completed prior to October 10 of the year designated by the Government.

The work includes but is not limited to removal and disposal of an existing treated timber bridge, excavation, riprap, construction approach roadways, foundations, installation and removal of a temporary bridge, the bridge superstructure and all other incidental items necessary to complete the project in accordance with the plans and specifications.

SPS 104

SECTION 104 – MAINTENANCE OF TRAFFIC

104.01 Roads to Be Constructed

Delete the last two paragraphs of this subsection and add the following:

“The Contractor shall be responsible for the safe passage of normal use traffic (passenger cars, RV’s, horse trailers) through the construction site during construction and outside work hours.” The Contractor will install a detour and temporary bypass bridge to allow public access through the project site during construction. Contractor will not be permitted to operate equipment in the stream as a means of access for equipment and materials. The temporary bypass bridge installed by the contractor must meet the following requirements:

- a. Temporary bypass bridge shall meet AASHTO “Standard Specification for Highway Bridge,” 16th Edition, with all current interim specifications and the following criteria:

- | | |
|---------------------------|--|
| (1) Design Live Load: | HS20 Loading or greater |
| (2) Current load ratings: | Adequate to carry all Montana State Highway legal loads |
| (3) Traffic: | Single Lane; 14-foot curb-to-curb width. |
| (4) Railing | 15-inch-high curbs (no approach rail). |
| (5) Span | Temporary bridge location will determine span required to keep approach road embankment out of the stream channel (Estimated at 28’ min.). |
| (1) Clear Height | Maintain 2 ft. clear height from bottom of bridge to water surface at time of construction. |

No railroad flat cars will be permitted for use as the temporary bypass bridge. The Helena NF has a portable bridge meeting the above requirements that will be made available at the Contractor’s request. The bridge is a 28 foot, glu-lam slab panel bridge (4 panels, 4-ft wide each, total bridge weight approximately 30,000 lbs). The bridge is currently in place at a site near Rimini, MT. Contractor will be required to disassemble, haul and install to Beaver Creek. Sills for the bridge are located at the Helena District Office. Once the temporary bypass bridge is no longer needed, the Contractor must remove and return the bridge to the Helena District Office.

Temporary bypass bridge to be installed and left in place only during period of July 1 through October 10 of the year designated by Government.

Contractor shall be responsible for construction and maintenance of temporary bypass bridge and approach roads to safely pass public traffic through road No. 138. Contractor shall prevent sediment from being introduced into Beaver Creek during construction and maintenance of approach roads for the temporary bridge. No excavation will be allowed for placement of the temporary bridge due to utility line in the area (Shown on attached Plan and Profile Drawing 1).

Temporary bridge location shall be approved by Project Lead.

Contractor shall be responsible for removal of temporary bypass bridge, approach roads and restoration of the site.

Borrow material for construction of temporary bridge and road base course will be obtained from within road No. 138 approximately 2.25 miles Southwest of the bridge location as shown on attached site map and approved by the Government. Borrow material will be extracted according to detail in attached drawing 11. All borrow material must be extracted within a single 5-day workweek (no weekends). Fill may be stockpiled near bridge site as approved by Project Lead.

A maximum traffic delay of one (1) hour will be allowed during borrow extraction. Traffic delay periods begin when the first traffic vehicle arrives at the closure site. This traffic delay period is the maximum delay traffic should experience within the entire construction area.

Contractor is responsible for installing and maintaining all necessary signing. Signing shall be in conformance with Manual on Uniform Traffic Control Devices (MUTCD). Contractor shall submit a traffic control and sign plan to Project Lead for approval.

Payment

104.03 Basis

“Payment for any work described under this section shall be paid for under item **601 (01) “Mobilization”**

SPS 105

SECTION 105-CONTROL OF MATERIALS

105.06 Material Sources

Under (a) Designated Sources, Add the following after the first sentence of the second paragraph.

Riprap Source – Government Furnished – A material source for riprap has been designated approximately 2.5 miles Southwest of the Beaver Creek #3 Bridge as shown on attached site map.

Under (b) Contractor-Furnished Sources add the following:

Prior to any pit development or use of materials, the pit site shall be approved by the engineer that the pit site is free of noxious weed as listed on the “All States Noxious Weeds List.”

SPS 106

SECTION 106 – MEASUREMENT & PAYMENT

106.03 Units of Measurement

Delete this subsection and add the following:

“Forest Service Specifications for Construction of Roads and Bridges (Revised August 1996) are based on Modern Metric units of measurement. The dimensions and units of measure SHOWN ON THE DRAWINGS and used to develop SPECIAL PROJECT SPECIFICATIONS for this contract, utilize U.S. Standard English units of measure. All measurements referenced in the August 1996 Forest Service Standard Specifications (EM-7720-100) shall be converted to U.S. Standard English units of measure. Appendix A – Engineering

Conversion Factors and Appendix B – SI (Modern Metric) Conversion Factors, are included on pages 611 – 614 of the Standard Specification Appendices to assist with any required conversions.

Work required by the contract will be paid based on PAY UNIT (U.S. Standard English measure) as DESIGNATED IN THE SCHEDULE OF ITEMS.

Under each Specification Section with PAY ITEMS of work DESIGNATED IN THE SCHEDULE OF ITEMS for measurement and payment under this contract, the last subsection “Payment – Basis,” shall have the following format:

Pay Item – Numbering system and work description to remain the same.

Pay Unit – Pay unit(s) DESIGNATED IN THE SCHEDULE OF ITEMS have been changed from metric to the corresponding unit of U.S. Standard English measure.

Payment will be by units defined and determined according to U.S. Standard English measure and by the following:

(a) **Cubic Yard in Place.** Measure solid volumes by the average end area method as follows:

- (1) Measure cross sections of the original ground and use with design or staked templates, or take other comparable measurements to determine the end area. Do not measure work outside of the established lines or slopes.
- (2) If any portion of the work is acceptable, but is not completed to the established line and slopes, remeasure cross sections or comparable measurements of that portion of the work. Deduct any quantity outside the designated or staked limits. Use these measurements to calculate new end areas.
- (3) Compute the quantity using the average end areas multiplied by the horizontal distance along a centerline or reference line between the end areas. Deduct any quantity outside the designed or staked limits.

Where it is impractical to measure material by the average end area method, other approved methods involving three-dimensional measurements may be used.

Measure liquid volumes in accordance with SPS Subsection 106.03(h).

(b) **Cubic Yard in the Hauling Vehicle.** Measure the cubic yard volume in the hauling vehicle using three-dimensional measurements at the point of delivery. Use vehicles bearing a legible identification mark with the body shaped so the actual contents may be readily and accurately determined. Before use, mutually agree in writing upon the volume of material to be hauled by each vehicle. Vehicles carrying less than agreed volume may be rejected or accepted at the reduced volume.

Level selected loads. If leveling reveals that the vehicle was hauling less than the approved volume, reduce the quantity of all material received since the last leveled load by the same ratio as the ratio of the current leveled load volume to the agreed volume. Payment will not be made for material in excess of the agreed volume.

Material measured in the hauling vehicle may be weighed and converted to cubic yards for payment purpose if the conversion factors are mutually agreed to in writing.

Compute measurement using measurements of material in the hauling vehicles at the point of delivery. Load vehicles to at least their water-level capacity. Leveling of the loads may be required when vehicles arrive at the delivery point.

- (c) Cubic Yard Mile. A combination of linear and volumetric measurement meaning the movement of a cubic yard of material one (1) mile.
- (d) Hour. Measurement will be for the actual number of hours ordered and performed by the Contractor.
- (e) Each. One complete unit, which may consist of one or more parts.
- (f) Lump Sum. Do not measure directly. The bid amount is complete payment for all work described in the contract and necessary to complete the work for that item.
- (g) MFBM. One thousand feet board measure based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminate timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.
- (h) Gallon. The quantity may be measured by any of the following methods:
 - a. Measured volume container.
 - b. Metered volume. Use an approved metering system.
 - c. Commercially packaged volumes.
- (i) Station. One hundred linear feet measured horizontally.
- (j) Station Yard. Measure on a plane parallel to the surface being measured or horizontal.
- (k) Square Yard. Measure on a plane parallel to the surface being measured or horizontal.
- (l) Thousand Gallons Mile. A combination of linear and volumetric measurement meaning the movement of 1,000 gallons of material one (1) mile.
- (m) Ton. Short ton consisting of 2,000 pounds. Use net certified scale weights based on certified volumes.
- (n) Ton Mile. A combination of linear and weight measurement meaning the movement of one (1) ton of material one (1) mile.

SPS 160

SECTION 160 - QUALITY CONTROL & QUANTITY MEASUREMENT

Construction

160.02 Quality Control and Quantity Measurement System

Under (a) Quality Control Plan," add the following:

- (3) Description of the testing facilities and information on when and where each of the required materials tests will be performed.
- (4) Random sampling and/or measurement plan prepared in accordance with requirements in Table 160."
- (5) A log of all samples that are taken by the Contractor shall be maintained for the duration of the contract, and provided to the Project Lead upon request. Test results on all samples shall be given directly to the Project Lead within 8 hours of test completion.

160.03 Sampling, Testing, Inspection, and Measurement of Quantities

Add the following:

Minimum sampling and testing FREQUENCY is defined in Table 160.

Sampling and testing by the contractor shall meet the applicable AASHTO and ASTM Standards. Unless waived by the Project Lead, the Project Lead will inspect both sampling and testing equipment and procedures prior to production. The testing laboratory (including equipment and personnel) shall be operational and available for inspection at least 2 days prior to producing aggregate for acceptance. The testing facility shall be located far enough from construction machinery to avoid harmful vibrations.

TABLE 160

SAMPLING, TESTING AND MEASUREMENT REQUIREMENTS

A soil type is defined such that all soil in the represented volume shall have the same group symbol in the Unified Soil Classification system (ASTM D 2487) and the percent passing the No. 4 sieve shall not vary more than 10 percent between samples.

Wherever a AASHTO T99 or T180 moisture density curve is required, gradation data will be provided as shown below. The moisture density sample shall maintain the same percentage of coarse material (passing 50 mm and retained on a number 4 sieve) as in the original field sample. Field density testing of soil will normally require the use of AASHTO T224, Coarse Particle Correction.

<u>Field Sample</u>	<u>Moisture Density Test Material</u>
Percent plus 19 mm	Percent plus No. 4
Percent 19 mm to No. 4 sieve	
Percent minus No. 4 sieve	

Where random sample or random measurement is specified, it shall be a stratified statistically random sample. Random numbers are to be determined by ASTM D3665 Section 5.1 thru 5.7, or a computer generated random number program approved by the Project Lead. The sampling must be stratified to eliminate the possibility of sample points being "clustered". Stratification is done by dividing the total quantity for the applicable bid item by the sample FREQUENCY. This process divides the total project quantity of one lot into sublots. The random number is used to obtain a random sampling point within each subplot. The contractor may terminate a lot, and start a new lot when approved by the Project Lead. Once a lot is terminated it may not be combined with any other lot. If material within a subplot fails to meet specification requirement, the Project Lead may allow the contractor to rework the subplot materials and resample at a different randomly selected location.

Key to symbols used in table:

CT: Sampling and testing by contractor's personnel identified by name on the approved contractor's Q/C plan. Interim approval of personnel submitted will be based on specified training or experience requirements. Final approval will be based on observation of work performance on the project.

PE: Sampling and testing under the direction of and certification by a registered engineer retained by the contractor and specifically identified on the approved contractor's Q/C plan.

FS: Sampling, testing, measuring and/or data furnished by the Government.

Note: The minimum FREQUENCY shown in this table is for contractor Quality Control sampling and testing. The contractor can run additional samples over the minimum number specified in the table. These additional samples can be taken in any manner, at any time desired by the contractor. Quality assurance sampling and testing by the Forest Service may be done at any time or location.

304.03 and 304A.03 Gradation

Gradation and percent fracture	CT/CT	One random sample per 1,000 tons. The FREQUENCY may be increased by the CO to one sample per day if less than 1,000 tons is produced per day. Minimum of three samples per project.
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304.04 and 304A.04 Quality (For both designated and contractor furnished sources)

Los Angeles Abrasion, Coarse and Fine Durability Index	CT/PE	Composite of random gradation samples taken during production or random samples taken from finished product.
Tests shall be completed within one week of sampling date		The number of samples depends on project size: To 15,000 tons-3/project or source Over 15,000 tons-3/project or source, Plus 1/10,000 tons thereafter.
Liquid Limit, Plasticity Index	CT/PE	Same as gradation sample if fines are plastic. If PE determines fines in source are non-plastic, no further tests are necessary.

304.12 and 304A.11 Thickness & Width Requirements

Measurement of Aggregate thickness and width	CT/CT	Random measurements: 5 per km minimum of 10 per project. For non-highway projects: 10 tests per
<u>Composition (Concrete Mix Design)</u> Concrete mix design & aggregate tests	PE/PE	One mix design submittal for each concrete class, including all the required tests on mix and aggregate for each source.
Aggregate moisture content	CT/CT	One test per day on fine and coarse aggregate

552.10 Quality Control of Mix

Mixing	CT/CT	As required per Specifications
Delivery and Sampling – Acceptance Tests (Concrete slump, air content, unit weight and test cylinders)	PE/PE	One set of tests per truck Four acceptance test cylinders per truck (two QC & two QA – 28 day breaks) Contractor shall be responsible for any additional field cure test cylinders to determine concrete strengths for construction progress.
Testing (Compressive Strength)	--/PE	Two cylinders per truck Two remaining test cylinders for each Truck to be supplied to Government For QA testing.

SPS 175

SECTION 175 – CONSTRUCTION STAKING

Description

175.01 Work.

Construction staking shall be completed by the Contractor after the notice to proceed and will include staking for the roadway and bridge. The Contractor is responsible for maintaining construction staking after notice to proceed, as required to construct the roadway and bridge.

Measurement

175.05 Method

“Payment for any work described under this section shall be paid for under item **175(06) Staking Major Structures, Type Bridge, Precision A.**”

SPS 204

SECTION 204-SOIL EROSION & POLLUTION CONTROL

Measurement

204.14 Method. Add the following:

Quantities shown for item 204(05) Straw Bales are for the discretionary use of the Government and are in addition to any bales that the Contractor intends to incorporate into the project as a part of the permanent and temporary erosion control measures as required under this specification.

Payment

204.15 Basis. Add the following:

Payment for straw bales furnished and erected by the Contractor as a part of the Soil Erosion and Pollution Control Plan will be paid for under item 204(19) Soil Erosion and Pollution Control.

SPS 206

SECTION 206 - STRUCTURAL EXCAVATION FOR MAJOR STRUCTURES

DESCRIPTION

206.01 Work

Add the following to this subsection:

This work shall include all excavation required to remove existing bridge fills and create the new channel configuration.

CONSTRUCTION

a. Backfill.

Replace the second sentence of the first paragraph with the following:

Compaction shall be attained with a minimum of (3) passes of approved mechanical compaction equipment or until there is no visible deflection under load.

Replace the third paragraph with the following:

“Backfill or embankment material shall be placed on both abutments of a spill-through type abutment so that not more than two (2) feet of elevation difference exists between the backfill or embankment of the two abutments. No embankment or backfill shall be placed higher than one (1) foot below the top of the cap until after the superstructure has been placed.

MEASUREMENT

a. Method.

Replace the second paragraph with the following:

“Measure structural excavation by Lump Sum. Include all excavation removal described and structural backfill for the bridge. Placement of excess suitable material for embankment shall be measured and paid for under item 203(11), Embankment.

SPS 251

SECTION 251 - RIPRAP

Payment

251.13 Basis. Add the following:

"The cost of excavation and embankment required for placement of riprap is incidental to this pay item and no separate payment will be made."

SPS 260

SECTION 260 – GEOCELL ABUTMENT STABILIZATION

Description

260.01 Work. Construct geocell abutment stabilization at each abutment using Presto Geoweb Cellular Confinement System, Webtec TerraCell, or approved equal in accordance with the plans and manufacturer's recommendations.

Materials

260.02 Requirements. Ensure that material conforms to specifications in the following subsections:

Coarse Granular Backfill	703.03
Geocell	726

Construction

260.03 General. Perform the work specified in Section 206. Use ditches, grading or similar methods to prevent surface runoff that may occur during inclement weather from ponding in the foundation excavation.

260.04 Geotextile Installation. Place the geotextile according to Section 221 or AS SHOWN ON THE DRAWINGS. Ensure that the surface upon which the geotextile is to be placed is uniform and is reasonably smooth and free of obstructions, depressions, and debris that could damage the geotextile. Have the surface approved by the Project Lead prior to placing geotextile.

Lay the geotextile without tension, stress, wrinkles or creases. Sew or overlap adjacent strips a minimum of 12" at joints. Insert securing pins through both strips of overlapped geotextile at minimum intervals of 3 feet, but no closer than 2 inches to each edge, to prevent the geotextile from being displaced.

Have the installed geotextile approved by the Project Lead prior to setting the geocells.

260.05 Geocell Installation. Place the geocell sections directly on the prepared subgrade. Expand the geocell sections into position at the grades and lines AS SHOWN ON THE DRAWINGS. Hold the expanded geocell sections with suitable "stretcher frames," steel stakes driven inside selected outer cell walls, or other similar methods as allowed by the geocell manufacturer prior to filling. Ensure that the individual cells have been expanded to the minimum dimensions required by the manufacturer. If necessary, field cut sections as per the manufacturer's recommendations to the lines SHOWN ON THE PLANS.

Connect geocell panels in accordance with the manufacturer's recommendations.

260.06 Infill Placement. Furnish the Project Lead with the manufacturer's specific recommendations for backfilling prior to placement of the geocells.

Place coarse granular backfill meeting subsection 703.03 into the expanded cells with equipment appropriate for the site conditions such as a backhoe or a front-end-loader. Do not drop infill material more than 3 feet to avoid damage or displacement of the cell walls.

Overfill the geocell cells and level to a minimum of 2 inches above the top of the cell walls. A front-end loader may be used to place the infill provided that it only traffics above geocell sections that have been filled and covered with the minimum 2 inches of additional material. Compact the infill material with a vibratory plate compactor. Operate compaction equipment over the full width of the geocell until visible deformation of the infill ceases. Make at least three complete passes. Grade the surface to be ½ inch above the top of the cells. Ensure that the cell walls are not exposed after fine grading is completed.

Use the geocell manufacturer's specific recommendations for backfilling if they are more stringent than stated above.

Measurement

260.07 Method. Use the method of measurement that is DESIGNATED IN THE SCHEDULE OF ITEMS.

Payment will be based on the contract unit price of geocell material placed and accepted. This will be exclusive of wastage and material placed outside the neat lines SHOWN ON THE PLANS.

Payment

260.08 Basis. The accepted quantities will be paid for at the contract unit price for the PAY ITEM DESIGNATED IN THE SCHEDULE OF ITEMS.

The cost for furnishing and placing the Coarse Granular Backfill and geotextile required for geocell infill is incidental to this pay item and no separate payment will be made.

Payment will be made under:

Pay Item	Pay Unit
260 (01) Geocell abutment stabilization, 6 inch depth	Square Yard

SPS 552

SECTION 552 – STRUCTURAL CONCRETE

Description

Construction

552.03 Composition (Concrete Mix Design). Delete the following subsections for Class A concrete only:

"(n), (p), (r) except for material finer than the 75 mm sieve, and (s)."

Construction

552.03 Composition (Concrete Mix Design).

(x) Change the last sentence of this subsection to:

"The maximum air content shall be 8 percent."

552.09 Delivery. Change the third sentence of the second paragraph to:

"Never allow the time interval between placement to exceed 30 minutes (20 minutes under hot weather conditions.)"

(a) Truck Mixer/Agitator. Delete the last sentence of the second paragraph.

552.10 Quality Control of Mix.

(b) Delivery & Sampling.

(3) Replace the first sentence of the second paragraph with the following:

"Sampling shall be done in accordance with AASHTO T 141."

(4) Delete the second sentence of the subsection.

(c) Testing. Add the following:

"Unless SHOWN ON THE DRAWINGS, all structural concrete elements will have been designed by the strength method."

552.12 Temperature and Weather Conditions.

- (a) Cold Weather. Replace the last two sentences of the second paragraph with:

"Submit to the Project Lead a cold weather plan for approval 21 days in advance of anticipated need. No placement of concrete shall be made if cold weather conditions are anticipated within 7 days without an approved plan."

SPS 555

SECTION 555 - STEEL STRUCTURES

Construction

555.03 General

Change the first sentence to read,

Fabricate the structural steel in a fabricating plant that is certified as "Category II or Simple Steel Bridges," under the American Institute of Steel Construction (AISC) Quality Certification Program.

555.17 Connections Using High-Strength Bolts.

- (c) Installation.

- (1) Rotational-Capacity Tests.

Change 'AASHTO M 164M, subsection 8.5" to 'ASTM A 325M, Test Method'.

SPS 557

SECTION 557 - TIMBER STRUCTURE.

Description

557.01 Work. Furnish, fabricate, erect, and paint structural timber, including all required yard lumber and hardware.

557.02 Requirements. Furnish material that conforms to specifications in the following section and subsections:

Hardware & Structural Steel.....	716.02
Painting.....	563
Structural Glued Laminated Timber.....	716.04
Treated Structural Timber & Lumber.....	716.03
Untreated Structural Timber & Lumber.....	716.01

Furnish, the following compliance certificates to the Project Lead upon delivery of the materials to the jobsite:

- (a) Verification of compliance with grading rules and species of timber and lumber. Provide certification by an agency accepted as competent by the American Lumber Standards Committee (ALSC).
- (b) Lot certification of each charge for preservative, penetration in millimeters, and retention in kilograms per cubic meter (assay method) by a qualified independent inspection and testing agency. In addition, have the producer of the treated products provide written certification that Best Management Practices (BMP's) in accordance with "Best Management Practices for Treated Wood in Western Aquatic Environments,"

published by the Western Wood Preservation Institute (WWPI) and Canadian Institute of Treated wood, were followed, including a description and appropriate documentation of the applicable BMP's used.

(c) Certification from a qualified inspection and testing agency indicating that all glued laminated members are in accordance with the requirements of American National Standard for Wood Products, "Structural Glued Laminated Timber" (ANSI/AITC A190.1) modified as SHOWN ON THE DRAWINGS.

(d) Such other certifications as SHOWN ON THE DRAWINGS or called for in the SPECIAL PROJECT SPECIFICATIONS.

Incise all glued laminated and solid sawn members thicker than 50 mm in accordance with AWP standard C1, unless otherwise SHOWN ON THE DRAWINGS.

Provide shop drawings for all timber 21 days in advance of fabrication when SHOWN ON THE DRAWINGS or in the SPECIAL PROJECT SPECIFICATIONS. Show all dimensions and fabrication details for all cut, framed, or bored timbers.

Construction

557.03 General. Perform the work under Section 206. Furnish structural lumber and timber of the required stress grade.

Clear stacks of weeds, rubbish, or other objectionable material from the ground under and in the vicinity of all stored material. Place the bottom layer of material at least 200 mm above the ground level. Provide sufficient support to prevent sagging.

Open-stack untreated material to shed water. Stack material in layers on spacers (stickers) that extend across the full width of the stack to allow for free air circulation. Align all stickers vertically and space them at regular intervals.

Close-stack treated material to shed water.

Protect material from the weather. If covered, use sheet material such as water-resistant paper or opaque polyethylene film. Do not cover with impervious membranes, such as polyethylene film, during dry weather. Slit individual wrappings full length or puncture on the lower side to permit drainage of water.

Store and protect glued laminated timber in accordance with the recommendations for Loading and Handling, Job Site Storage, and Erection in "Recommended Practice for Protection of Structural Glued Laminated Timber During Transit, Storage, and Erection," published by the American Institute of Timber Construction, AITC 111.

Use slings or other devices to protect corners of heavy construction timbers and banded packages of heavy construction timber

557.04 Treated Timber. Fabricate timbers before treatment. Handle treated timber according to the Consumer Information Sheet published by AWP. Do not cut, frame, or bore treated timber after treatment unless approved by the Project Lead. Handle treated timbers carefully and do not drop, damage outer fibers, or penetrate the surface with tools. Do not use cant dogs, hooks or pike poles. In coastal waters, do not cut or bore timber below the highwater mark.

Field treat all cuts, abrasions, bolt holes, and recesses that occur after treatment in accordance with the requirements specified in AWP standard M4, Standard for the Care of Pressure-Treated Wood Products. Plug all unused holes with preservative-treated plugs. Perform all field-applied preservation treatment with necessary precautions so as to prevent and soil and/or water contamination.

557.05 Untreated Timber. Field treat the following untreated timber surfaces in accordance with AWP standard M4.

- (a) All ends and Tops, and all contact surfaces of posts, sills, and caps.
- (b) All ends, joints, and contact surfaces of bracing and truss members.
- (c) All surfaces of timber bumpers and the back faces of bulkheads.
- (d) All other timber that will be in contact with earth.

557.06 Workmanship. Cut and form all lumber and construction timbers so all joints will have even bearing over the entire contact surface. Do not use shims in making joints. Construct all joints to be closed. Drive nails and spikes to set the heads flush with the wood surface. Use the same end, face, and edge of the timber member for all layout dimensions. Bore all holes from mating faces.

557.07 Holes for Bolts, Dowels, Rods & Lag Screws. Bore holes for machine bolts with a bit 1.5 mm larger than the diameter, except when galvanized bolts are specified. In this case, drill all holes 3 mm greater than the bolt size. Drill the depth of lag screw bolt holes 25 mm less than the length of the screw head and with a diameter approximately 75 percent of the shank diameter.

557.08 Hardware. Furnish the hardware as SHOWN ON THE DRAWINGS, as specified below.

(a) Bolts & Washers. Final tighten all nuts to provide proper bearing, and cut off excess bolt lengths of more than 25 mm. After final tightening, check or burr all bolts effectively with a pointing tool to prevent loosening of the nuts.

Use malleable iron washers with a diameter approximately four times the bolt diameter under all bolt heads or nuts in contact with wood, unless otherwise SHOWN ON THE DRAWINGS.

(b) Galvanizing. Unless otherwise SHOWN ON THE DRAWINGS, ensure that all hardware for timber structures is galvanized. Ensure that all fasteners, including nails, spikes, bolts, washers, and timber connectors, other than malleable iron, are galvanized.

557.14 Stringers. Glued-laminated stringers shall be positioned so that the camber is up for simply supported stringers.

557.15 Glued Laminated Panel Decks. Do not drag or skid panels. When lifted, support panels in the weak-moment plane at a sufficient number of points to avoid overstressing, and protect the edges from damage.

Follow erection procedures given in FPL-263, Forest Service, Forest Products Laboratory (FPL), Madison, Wisconsin.

Measurement

b. Method

Measure and payment for all work under this section shall be included in and considered incidental to the lump sum contract price for Item 560(01) – “Bridge Superstructure.”

SPS 560

SECTION 560 – BRIDGE SUPERSTRUCTURE

Description

**560.01
Work.**

This work shall consist of furnishing and erecting the bridge superstructure. The bridge superstructure shall include the following:

- Bridge Girders
- Diaphragms
- Timber Deck Panels
- Bearing w/Anchorage Devices
- Timber Backing Planks
- Timber Bridge Curbs and

All connection hardware, equipment, tools and other incidental materials needed to complete the work as shown in the plans.

Materials

**560.02
Requirements.**

Materials shall meet the requirements designated on the drawings and in the specifications.

**560.04
Submittals.**

No shop drawings are required for the steel superstructure if constructed as shown on the drawings. Optimal prefabricated steel bridge superstructure shall require shop drawings as outlined below.

Construction

**560.05
Performance**

The work shall conform to the applicable construction provision of the following subsections of the Standard Specifications and These Special Project Specifications.

Structural Concrete.....	552
Steel Structures.....	555
Timber Structures.....	557
Bearing Devices.....	564

**560.03
Bridge Superstructure – Optional Prefabricated Bridge Superstructure
Design Requirements.**

An optional prefabricated bridge superstructure shall be designed for HS-20 loading in accordance with the AASHTO Standard Specifications for Highway Bridges, 17th, except deflections shall not exceed $L/360$ for live loads. The superstructure geometry and general configuration shall be as shown on the drawings. The timber glued-laminated deck and curbs are to be maintained as shown on the drawings. An alternative deck system will not be allowed. Total depth of superstructure from top of running surface to bottom of steel stringers may vary by not more than –3 inches or +3 inches from that shown on the drawings. The profile grade shown on the drawings shall be maintained. The bottom of footing elevations shown on the drawings shall be adjusted to account for any difference in superstructure depth. All costs associated with additional excavation,

approach roadway work or removal of excess material due to a different superstructure depth shall be included in the lump sum cost for Structural Excavation.

A prefabricated bridge superstructure shall consist of a single or two major longitudinal components. A positive means of attaching components together with steel cross-bracing or diaphragms, placed at a minimum of 1/3 span points along the span, is required and may vary from the details shown on the drawings.

An alternative prefabricated bridge superstructure shall be designed by a licensed professional engineer. Design calculations and detail drawings shall bear the signature, date and seal of a professional engineer and be submitted to the engineer for approval. Drawings shall provide complete details of the bridge superstructure. All detail changes to elevations, backing planks or abutments, from those shown on the drawings, are the responsibility of the contractor and shall be identified and shown on the drawings for approval.

Measurement & Payment

560.06

Method and Basis

Measurement and payment for fabrication, furnishing and installation the bridge superstructure shall be included in and considered incidental to the lump sum contract price for Item 560(01) – “Bridge Superstructure”. This price shall include all materials, labor, tools, equipment and incidental items necessary to complete the work.

SPS 601

SECTION 601 – MOBILIZATION

Description

601.01 Work. Add the following:

Noxious Weed Control Requirements:

Clean all construction equipment prior to entry onto the project area. Remove all dirt and plant parts and material that could carry noxious weed seeds into the project area. Only construction equipment so cleaned and inspected by the Forest Service will be allowed to operate within the project area. Treat all subsequent move-ins of construction equipment in the same manner as initial move-ins. “Construction equipment” does not include personal vehicles, paving equipment or support equipment that remains on the main travel route.

Prior to the initial move-in, the contractor shall make all construction equipment available for inspection by the Government at an agreed upon location. Provide the Government at least 24 hours advance notification when equipment is ready for inspection.

Payment

601.03 Basis. Add the following:

Include all costs associated with the cleaning of equipment in the unit price bid for Mobilization.

SPS 637

SECTION 637 – EQUIPMENT RENTAL

Payment

Add the following pay item:

Pay Item

Pay Unit

637(01) Hydraulic Excavator with Thumb, Minimum 150
Flywheel HP

Hour

SPS 703

SECTION 703 - AGGREGATE

703.01 Fine Aggregate for Portland Cement Concrete

- (a) Change 'AASHTO M 6, class B' to 'AASHTO M 6, Class A'.

SPS 726

SECTION 726 – GEOCELL

Furnish geocell panels consisting of sheet strips fabricated from high-density polyethylene (H.D.P.E.), which are connected in series at offset, full-depth ultrasonic seams, aligned perpendicular to the longitudinal axis of the strips. When expanded, the interconnected strips form the walls of a flexible, three-dimensional cellular confinement structure into which the specified infill materials can be placed.

Ensure that the polyethylene material used to fabricate the geocell sections is treated to resist ultraviolet degradation and that is conforms to the following:

- (4) Density.....0.935-0.965 g/cm³ per ASTM
D1505

- (b) Environmental Stress
Crack Resistance (ESCR).....2000 hour per ASTM D1693

Use strips with a sheet thickness, of 1.27 mm –5% +10% (50 mil –5% +10%) tested per ASTM D5199. Thickness shall be determined in the flat, before any surface texturing or other surface disruption.

Ensure that cell seam strength is uniform over the full depth of the cell. Test short-term peel strength per U.S. Army Corps of Engineers Technical Report GL-86-19, Appendix A. Provide a minimum seam peel strength of 2000 N (450 lb) for the 203 mm (8.0 in) depth cell.

Test seam hang-strength for a period of 30 days minimum at room temperature. Room temperature is defined in ASTM E41. Use test samples made by welding two 102 mm (4 in) wide polyethylene strips together. Ensure that a test sample consisting of two carbon black stabilized strips supports a 72.5 kg (160 lb) load for the test period that a test sample consisting of carbon black stabilized strip and HALS stabilized strip supports a 63.5 kg (140 lb) load for the test period.

Furnish the Project Lead with a certificate signed by legally authorized official from the company that manufactured the geocell. Ensure that the certificate attests the geocell meets the chemical, physical, material and manufacturing requirements stated in the specification. When requested by the Project Lead, furnish a sample of the geocell from each lot for verification testing.

During shipment and storage, wrap the geocell in heavy-duty protective covering. Protect the geocell from mud, soil, dust, debris and sunlight prior to installation.

The following products meet this specification:

GEOWEB manufactured by Presto Products Company, P.O. Box 2399, Appleton, WI 54913-2399, telephone 920-738-1222.

TERRACELL manufactured by Webtec, Inc., P.O. Box 19729, Charlotte, NC 28219, telephone 704-398-0954.

WAGE RATE: HEAVY

GENERAL DECISION: **MT20030001** 11/28/2003 MT1

Date: November 28, 2003

General Decision Number: **MT20030001** 11/28/2003

Superseded General Decision Number: MT020001

State: Montana

Construction Types: Heavy

Counties: Montana Statewide.

HEAVY CONSTRUCTION PROJECTS

ZONE DEFINITIONS

CARPENTERS, *CEMENT MASONS, LABORERS, POWER EQUIPMENT OPERATORS
AND TRUCK DRIVERS

The zone hourly rates applicable to each project shall be
determined by measuring the road miles over the shortest
practical maintained route from the nearest County Court House
of the following listed towns to the center of the job:

BILLINGS, BOZEMAN, BUTTE, GREAT FALLS, HAVRE, HELENA,
KALISPELL, LEWISTOWN, MILES CITY, MISSOULA

Zone 1: 0 to 30 miles - Base Pay

Zone 2: 30 to 60 miles - Base Pay + \$2.20

Zone 3: Over 60 miles - Base Pay + \$3.70

*CEMENT MASONS ZONES: The above cities plus DILLON, GLASGOW,
GLENDDIVE, SIDNEY

Modification Number Publication Date

0	06/13/2003
1	11/07/2003
2	11/28/2003

CARP0028-002 05/01/2003

STATEWIDE EXCEPT BEAVERHEAD AND SILVER BOW COUNTIES

	Rates	Fringes
Carpenters: (Zone 1)		
Carpenter.....	\$ 19.85	5.83
Millwright.....	\$ 21.85	5.83

Piledrivermen.....\$ 19.85 5.83

CARP0028-004 06/01/2000

STATEWIDE EXCEPT BEAVERHEAD AND SILVER BOW COUNTIES

	Rates	Fringes
Diver.....	\$ 54.93	5.70
Diver Tender.....	\$ 26.25	5.70

CARP0112-001 05/01/1998

BEAVERHEAD AND SILVER BOW COUNTIES

	Rates	Fringes
Carpenters: (Zone pay not applicable)		
Carpenter.....	\$ 16.71	4.82
Millwright.....	\$ 17.21	4.82
Pile Driver.....	\$ 17.71	4.82

ELEC0044-001 06/01/2002

BEAVERHEAD, BIG HORN, BLAINE, BROADWATER, CARBON, CARTER, CASCADE, CHOUTEAU, CUSTER, DANIELS, DAWSON, DEER LODGE, FALLON, FERGUS, GALLATIN, GARFIELD, GLACIER, GOLDEN VALLEY, GRANITE, HILL, JEFFERSON, JUDITH, BASIN, LEWIS AND CLARK, LIBERTY, MADISON, MCCONE, MEAGHER, MINERAL, MISSOULA, MUSSELSHELL, PARK, PETROLEUM, PHILLIPS, PONDERA, POWDER RIVER, POWELL, PRAIRIE, RAVALLI, RICHLAND, ROOSEVELT, ROSEBUD, SHERIDAN, SILVER BOW, STILWATER, SWEET GRASS, TETON, TOOLE, TREASURE, VALLEY, WHEATLAND, WIBAUX, AND YELLOWSTONE COUNTIES

	Rates	Fringes
Line Construction		
(1) Lineman.....	\$ 25.79	4.25%+6.71
(2) Equipment Operator.....	\$ 20.63	4.25%+6.34
(3) Experienced Groundman.....	\$ 16.76	4.25%+6.07

ELEC0233-001 06/01/2003

Blaine, Cascade, Chouteau, Fergus, Glacier, Hill, Judith Basin, Liberty, Petroleum, Phillips, Pondera, Teton, Valley, and Wheatland Counties

	Rates	Fringes
Electrician.....	\$ 22.36	4.25%+7.70

ELEC0233-002 06/01/2003

BEAVERHEAD, DEER LODGE, GRANITE, JEFFERSON, MADISON, POWELL, AND
SILVER BOW COUNTIES

	Rates	Fringes
Electrician.....	\$ 22.73	4.25%+7.77

ELEC0233-006 06/01/2003

BROADWATER, LEWIS AND CLARK, AND MEAGHER COUNTIES

	Rates	Fringes
Electrician.....	\$ 22.36	4.25%+7.70

ELEC0532-001 06/01/2002

GALLATIN, PARK, AND SWEET GRASS COUNTIES

	Rates	Fringes
Electrician.....	\$ 21.36	4.25%+6.84

ELEC0532-003 06/01/2002

BIG HORN, CARBON, CARTER, CUSTER, DANIELS, DAWSON, FALLON,
GARFIELD, GOLDEN VALLEY, McCONE, MUSSELSHELL, POWDER RIVER,
PRAIRIE, RICHLAND, ROOSEVELT, ROSEBUD, SHERIDAN, STILLWATER,
TREASURE, WIBAUX AND YELLOWSTONE COUNTIES

	Rates	Fringes
Electrician.....	\$ 22.80	4.25%+7.48

ELEC0768-001 06/01/2001

FLATHEAD, LAKE, LINCOLN, MINERAL, MISSOULA, RAVALLI, AND
SANDERS COUNTIES

	Rates	Fringes
Electrician.....	\$ 23.00	7.28

ELEC0768-003 04/01/2003

FLATHEAD, LAKE, AND LINCOLN COUNTIES

	Rates	Fringes
Line Construction		
(1) Cable Splicer.....	\$ 27.03	9.81
(2) Lineman.....	\$ 24.85	9.84
(3) Groundman.....	\$ 16.48	9.07

ENG10400-001 05/01/2001

	Rates	Fringes
Power Equipment Operator (Zone 1)		
Group 1.....	\$ 17.74	4.90
Group 2.....	\$ 18.16	4.90
Group 3.....	\$ 18.53	4.90
Group 4.....	\$ 18.78	4.90
Group 5.....	\$ 19.76	4.90
Group 6.....	\$ 20.27	4.90
Group 7.....	\$ 21.81	4.90

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Air Compressor; Auto Fine Grader; Belt Finishing Machine; Boring Machine, small; Cement Silo; Crane, A-Frame Truck Crane; Crusher Conveyor; DW-10, 15, and 20 Tractor Roller; Farm Tractor; Forklift; Form Grader; Front-end Loader under 1 cu yd; Heavy Duty Drills; Herman Nelson Heater; Mulching Machine; Oiler, all except Cranes. & Shovels; Pumpman.

GROUP 2: Air Doctor; Backhoe/Excavator/Shovel to and including 3 cu yd; Bit Grinder; Bituminous Paving Travel Plant; Boring Machine, large; Broom, self-propelled; Concrete Travel Batcher; Concrete Float & Spreader; Concrete Bucket Dispatcher; Concrete Finish Machine; Concrete Conveyor; Distributor; Dozer, Rubber-Tired, Push & Side Boom; Elevating Grader/Gradall; Field Equipment Serviceman; Front-end Loader 1 cu yd to including 5 cu yd; Grade Setter; Heavy Duty Drills, all types; Hoist/Tugger, all; Hydralift & similar; Industrial Locomotive; Motor Patrol, except Finish; Mountain Skidder; Oiler - Cranes & Shovels; Pavement Breaker, EMSCO; Power Saw, self-propelled; Pugmill; Pumpcrete/Grout Machine; Punch Truck; Roller, other than Asphalt; Roller, Sheepsfoot, self-propelled; Roller, 25 tons and over; Ross Carrier; Rotomill under 6 ft; Trenching Machine; Washing/Screening Plant.

GROUP 3: Asphalt Paving Machine; Asphalt Screed;
 Backhoe/Excavator/Shovel over 3 cu yd; Cableway Highline;
 Concrete Batch Plant; Concrete Curing Machine; Concrete Pump;
 Cranes, Creter; Cranes, Electric Overhead; Cranes, 24 tons
 and under; Curb Machine/Slip Form Paver; Finish Dozer;
 Front-end Loader over 5 cu yd; Mechanic/Welder; Pioneer
 Dozer; Roller, Asphalt (Breakdown & Finish); Rotomill, over 6
 ft; Scraper, single, twin, or pulling Belly Dump; Yo-Yo Cat.

GROUP 4: Asphalt/Hot Plant Operator; Cranes, 25 tons to 44
 tons; Crusher Operator; Finish Motor Patrol; Finish Scraper.

GROUP 5: Cranes, 45 tons to including 74 tons; Crane, Tower,
 all.

GROUP 6: Cranes, 75 tons to including 149 tons; Crane,
 Whirley, all.

GROUP 7: Cranes, 150 tons to including 250 tons (add \$1.00
 for every 100 tons over 250 tons); Crane, Stiff-Leg or
 Derrick; Helicopter Hoist.

IRON0014-002 07/01/2003

FLATHEAD, GLACIER, LAKE, LINCOLN, MINERAL, MISSOULA, AND
 SANDERS COUNTIES

	Rates	Fringes
Ironworker.....	\$ 21.62	11.63

IRON0841-002 07/01/2002

REMAINING COUNTIES

	Rates	Fringes
Ironworker.....	\$ 18.80	11.86

LABO0098-001 05/01/2000

	Rates	Fringes
Laborers: (Zone 1)		
Group 1.....	\$ 13.41	4.40
Group 2.....	\$ 16.19	4.40
Group 3.....	\$ 16.33	4.40
Group 4.....	\$ 17.05	4.40

LABORERS CLASSIFICATIONS

GROUP 1: Flagperson

GROUP 2: All General Labor work; Burning Bar; Bucket man; Carpenter Tender; Caisson Worker; Cement Mason Tender; Cement Handler (dry); Chuck Tender; Choker Setter; Concrete worker; Curb Machine-Lay Down; Crusher and Batch worker; Fence Erector; Form Setter; Form Stripper; Heater Tender; Landscaper; Pipe Wrapper; Pot Tender; Powderman Tender; Rail and Truck Loaders and Unloaders; Riprapp; Sealants for concrete and other materials; Sign Erection, Guard Rail and Jersey Rail; Stake Jumper; Spike Driver; Signalman; Tail Hoseman; Tool Checker and Houseman; Traffic Control worker.

GROUP 3: Concrete Vibrator; Dumpman (Grademan); Equipment Handler; Geotextile and Liners; High-Pressure Nozzleman; Jackhammer (Pavement Breaker); Laser Equipment; Non-Riding Rollers; Pipelayer; Posthole Digger (Power); Power Driven Wheelbarrow; Rigger; Sandblaster; Sod Cutter-Power; Tampers

GROUP 4: Asphalt Raker; Cutting Torch; Grade Setter; High-Scaler; Power Saws (Faller & Concrete); Powderman (\$1.00 per hour above Group 4 rate); Rock & Core Drill; Track or Truck mounted Wagon Drill; Welder including Air Arc

PAIN0260-001 07/01/2002

BLAINE, BROADWATER, CASCADE, CHOUTEAU, DANIELS, FERGUS, GARFIELD, GLACIER, GRANITE (South of a line running East & West through the Southern city limits of Phillipsburg), HILL, JEFFERSON, JUDITH BASIN, LEWIS AND CLARK, LIBERTY, McCONE, MEAGHER, PETROLEUM, PHILLIPS, PONDERA, POWELL (South of a line running East & West through the Southern City limits of Helmsville), RICHLAND, ROOSEVELT, SHERIDAN, TETON, TOOLE, VALLEY, AND WHEATLAND COUNTIES

	Rates	Fringes
Painter.....	\$ 13.85	1%+3.45

PAIN0260-002 07/01/2002

FLATHEAD, GRANITE (North of a line running East & West through the Southern city limits of Phillipsburg), LAKE, LINCOLN, MINERAL, MISSOULA, POWELL (North of a line running East & West through the Southern city limits of Helmsville), RAVALLI, AND SANDERS COUNTIES

	Rates	Fringes
Painter.....	\$ 16.85	1%+3.45

PAIN1922-001 08/01/2003

BEAVERHEAD, BIG HORN, CARBON, CARTER, CUSTER, DAWSON, DEER LODGE, FALLON, GALLATIN, GOLDEN VALLEY, JEFFERSON, MADISON, MUSSELSHELL, PARK, POWDER RIVER, PRAIRIE, ROSEBUD, SILVER BOW, STILLWATER, SWEET GRASS, TREASURE, WIBAUX, AND YELLOWSTONE COUNTIES

	Rates	Fringes
--	-------	---------

Painter

Industrial (Includes

Industrial Plants,

Tanks, Pipes, Bridges).....\$ 18.00 a+b

PLAS0119-001 05/01/2000

STATEWIDE (except Deer Lodge, Jefferson, Powell, and Silver Bow Counties)

	Rates	Fringes
--	-------	---------

Cement Masons: (Zone 1)

Area 1.....\$ 16.23 5.10

Area 2.....\$ 17.30 5.10

AREA 1: STATEWIDE (except Deer Lodge, Jefferson, Powell, and Silver Bow Counties)

AREA 2: DEER LODGE, JEFFERSON, POWELL, AND SILVER BOW COUNTIES

PLUM0030-003 09/01/2003

BIGHORN, BLAINE, CARBON, CARTER, CASCADE, CHOUTEAU, CUSTER, DANIELS, DAWSON, FALLON, FERGUS, GARFIELD, GLACIER, GOLDEN VALLEY, HILL, JUDITH BASIN, LIBERTY, McCONE, MEAGHER, MUSSELSHELL, PETROLEUM, PHILLIPS, PONDERA, POWDER RIVER, PRAIRIE, RICHLAND, ROOSEVELT, ROSEBUD, SHERIDAN, STILLWATER, TETON, TOOLE, TREASURE, VALLEY, WHEATLAND, WIBAUX AND YELLOWSTONE COUNTIES

	Rates	Fringes
--	-------	---------

Plumber.....\$ 24.20 10.05

* PLUM0041-001 07/01/2002

BEAVERHEAD, BROADWATER, DEER LODGE, GALLATIN, GRANITE, JEFFERSON, LEWIS AND CLARK, MADISON, PARK, POWELL, SILVER BOW, AND SWEET GRASS COUNTIES

	Rates	Fringes
--	-------	---------

Plumber.....\$ 24.30 7.55

PLUM0459-001 07/01/2003

FLATHEAD, GLACIER, LAKE, LINCOLN, MINERAL, MISSOULA, RAVALLI,
AND SANDERS

	Rates	Fringes
Plumber.....	\$ 22.86	8.90

TEAM0002-001 06/01/1999

	Rates	Fringes
Truck drivers: (Zone 1)		
Group 1.....	\$ 13.31	4.96
Group 2.....	\$ 17.34	4.96

TRUCK DRIVERS CLASSIFICATIONS:

GROUP 1: Pilot Car

GROUP 2: All Combination Trucks and Concrete Mixers;
Distributor Driver; All Dry Batch Trucks; Dumpman, Gravel
Spreader Box Operator; All Dump Trucks and similar equipment
including DW 20, DW 21, or Euclid Tractor; Dumpsters; Flat
Trucks; Servicemen; Lowboys, Four-Wheel Trailers; Float
Semi-Trailer; Lumber Carriers, Lift Trucks & Fork Lifts;
Pick-up Driver hauling material; Powder Truck (Bulk Unloader
type); Power Boom; Service Truck Drivers, Fuel Truck Drivers,
Tiremen; All Water Tank Drivers; Petroleum Products Drivers;
Trucks with Power Equipment such as Winch, A-Frame Truck,
Crane, Hydralift, Gout-Crete Truck, and Combination Mulching,
Seeding & Fertilizing Truck; Truck Mechanic

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates
listed under the identifier do not reflect collectively
bargained wage and fringe benefit rates. Other designations
indicate unions whose rates have been determined to be

prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

WAGE RATE: HIGHWAY

GENERAL DECISION: **MT20030002** 11/07/2003 MT2

Date: November 7, 2003

General Decision Number: **MT20030002** 11/07/2003

Superseded General Decision Number: MT020002

State: Montana

Construction Types: Highway

Counties: Montana Statewide.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number Publication Date

0 06/13/2003

1 11/07/2003

* SUMT2001-001 09/04/2003

****ZONE PAY****

**CARPENTERS, CEMENTS MASONS, IRON WORKERS, LABORERS, POWER
EQUIPMENT OPERATORS, TRUCK DRIVERS**

The hourly wage rates applicable to each project shall be
determined by measuring the road miles over the shortest
practical maintained route from the County Court House of the
following towns to the center of the job:

**BILLINGS, BOZEMAN, BUTTE, GREAT FALLS, HAVRE, HELENA,
KALISPELL, LEWISTOWN, MILES CITY, MISSOULA**

ZONE 1: 0 to 30 miles

ZONE 2: 30 to 60 miles - Base Pay +\$2.95

ZONE 3: Over 60 miles - Base Pay + \$4.75

Rates Fringes

Carpenters:

Carpenter.....\$ 19.55 5.85

Piledriverman.....\$ 19.55 5.85

Cement Mason.....\$ 17.37 5.50

Electricians:

Area 1.....\$ 18.74 2.93+3.8%

Area 2.....\$ 20.13 4.76+3.8%

Area 3.....\$ 19.98 3.44+3.8%

Area 4.....	\$ 19.84	3.51+3.8%
Area 5.....	\$ 20.54	3.54+3.8%
Area 6.....	\$ 18.02	3.44+3.8%

ELECTRICIANS AREA DESCRIPTIONS

AREA 1: Beaverhead, Deer Lodge, Granite, Jefferson, MZdison, Silver Bow, and Powell Counties

AREA 2: Big Horn, Carbon, Carter, Custer, Dawson, Fallon, Garfield, Golden Valley, Musselshell, Powder River, Prairie, Rosebud, Stillwater, Treasure, Wibaux, and Yellowstone counties

AREA 3: Blaine, Cascade, Chouteau, Daniels, Fergus, Glacier, Hill, Judith Basin, Liberty, McCone, Petroleum, Pondera, Phillips, Richland, Roosevelt, Sheridan, Teton, Toole, Valley, and Wheatland Counties

AREA 4: Broadwater, Lewis and Clark, and Meagher Counties

AREA 5: Flathead, Lake, Lincoln, Mineral, Missoula, Ravalli, and Sanders Counties

AREA 6: Gallatin, Park, and Sweet Grass Counties

Ironworker

Flathead, Glacier, Lake, Lincoln, Mineral, Missoula and Sanders Cos.....	\$ 20.43	10.00
Remaining Counties.....	\$ 18.97	10.87

Laborers:

Group 1.....	\$ 13.68	5.50
Group 2.....	\$ 16.18	5.50
Group 3.....	\$ 16.35	5.50
Group 4.....	\$ 17.18	5.50

LABORERS CLASSIFICATIONS

GROUP 1: Flag person

GROUP 2: All General Labor work; Burning Bar; Bucket man; Carpenter Tender; Caisson Worker; Cement Mason Tender; Cement Handler (dry); Chuck Tender; Choker Setter; Concrete worker; Curb Machine-Lay Down; Crusher and Batch Plant Worker; Fence Erector; Form Setter; Form Stripper; Heater Tender; Landscaper; Pipe Wrapper; Pot Tender; Powderman Tender; Rail and Truck Loaders and Unloaders; Riprappor; Sealants for Concrete and other materials; Sign Erection, Guard Rail and Jersey Rail; Stake Jumper; Spike Driver; Signalman; Tail Hoseman; Tool Checker and Houseman; Traffic Control worker

GROUP 3: Concrete Vibrator; Dumpman (Grademan); Equipment

Handler; Geotextile and Liners; High-Pressure Nozzlemen;
 Jackhammer (Pavement Breaker); Laser equipment; Non-riding
 Rollers; Pipelayer; Posthole Digger (power); Power Driven
 Wheelbarrow; Rigger; Sandblaster; Sod Cutter-power; Tampers

GROUP 4: Asphalt Raker; Cutting Torch; Grade Setter; High-
 Scaler; Power Saws (Faller & Concrete); Powderman (\$1.00 per
 hour above Group 4 rate); Rock & Core Drill; Track or Truck
 mounted Wagon Drill; Welder including Air Arc

Line Construction

Equipment Operator.....	\$ 19.16	5.05
Groundman.....	\$ 15.40	5.05

Painters:.....\$ 19.55 5.50

Pavement marking and related work. Includes operating marking
 and all other equipment and all work involved in traffic m
 arking including removal, surface preparation and
 application of pavement markings including epoxies, paints,
 tape, buttons, thermo - plastics and any other products
 applied for traffic marking purposes and for directing and
 regulating traffic

Power Equipment Operator

Group 1.....	\$ 17.51	5.50
Group 2.....	\$ 18.38	5.50
Group 3.....	\$ 19.12	5.50
Group 4.....	\$ 19.71	5.50
Group 5.....	\$ 20.85	5.50
Group 6.....	\$ 21.44	5.50
Group 7.....	\$ 23.22	5.50

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: A-Frame Truck Crane; Air Compressor; Auto Fine
 Grader; Belt Finishing Machine; Boring Machine (small);
 Cement Silo, Crane; Crusher Conveyor, DW-10, 15, and 20
 Tractor Roller; Farm Tractor; Forklift; Form-Grader;
 Front-end Loader under 1 cu yd; Oiler, Heavy Duty Drills;
 Pumpman; Oiler (All, except Cranes and Shovels)

GROUP 2: Air Doctor; Backhoe/Excavator/Shovel to & incl 3 cu
 yd Bit Grinder; Bituminous Paving Travel Plant; Boring
 Machine, large; Broom, Self-Propelled; Concrete Bucket
 Dispatcher; Concrete Conveyor; Concrete Finish Machine;
 Concrete Float and Spreader; Concrete Travel Batcher;
 Distributor; Dozer, Rubber tired, Push, and Side Boom;
 Drills, Heavy Duty (all types); Elevating Grader/Gradall;
 Field Equipment Serviceman; Front-end Loader 1 cu yd to and
 incl. 5 cu yd; Grade Setter; Hoist/Tugger (All Hydralift &
 Similar); Industrial Locomotive; Motor Patrol (Except
 Finish); Mountain Skidder; Oiler, Cranes & Shovels; Pavement
 Breaker, EMSCO; Power Saw, Self-Propelled; Pugmill;
 Pumpcrete/ Grout Machine; Punch Truck; Rollers (All except
 Asphalt Finish and Breakdown); Ross Carrier; Rotomill under 6

ft; Trenching Machine; Washing/Screening Plant

GROUP 3: Asphalt Finish Roller; Asphalt Breakdown Roller; Asphalt Paving Machine; Backhoe/Excavator/Shovel larger than 3 cu yd; Asphalt Screed; Concrete Batch Plant; Cableway Highline; Concrete Curing Machine; Cranes, 24 tons & under; Cranes, Creter; Cranes, Electric Overhead; Concrete Pump; Curb Machine/Slip Form Paver; Finish Dozer; Mechanic/Welder; Pioneer Dozer; Rotomill 6 ft and over; Scraper, Single Engine; Scraper Twin or pulling Belly Dump; Yo Yo Cat Front-end Loader over 5 cu yd;

GROUP 4: Asphalt/Hot Plant Operator; Cranes, 25 tons to 44 tons; Crusher Operator; Finish Motor Patrol; Finish Scraper

SPECIAL OPERATORS:

GROUP 5: Cranes, 45 tons to and including 74 tons

GROUP 6: Cranes, 75 tons to and including 149 tons

GROUP 7: Cranes, 150 tons to and including 250 tons; Cranes over 250 tons: add \$1.00 for every 100 tons over 250 tons; Crane, Stiff-Leg or Derrick; Crane, Tower all); Crane, Whirley (all); Helicopter Hoist

Truck drivers:

Group 1.....	\$ 14.96	5.50
Group 2.....	\$ 19.55	5.50

GROUP 1: Pilot Car

GROUP 2: Combination Truck and Concrete Mixer and Transit Mixer; Dry Batch Trucks; Distributor Driver; Dumpman; Dump Trucks and similar equipment; Dumpster; Flat Trucks; Lumber Carriers; Lowboys; Pickup; Powder Truck Driver; Power Boom; Serviceman; Service Truck/Fuel Truck/Tireperson; Truck Mechanic; Trucks with Power Equipment; Warehouseman, Partsman, Cardex and Warehouse Expeditor; Water Trucks

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates

listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

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Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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END OF GENERAL DECISION

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 96X31220000 082433 323053BL080WDDOA NA 96453
COST 000000000000
CODE:
AMOUNT: \$70,460.00

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Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	DEC 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	JUL 1995
52.204-7	Central Contractor Registration	OCT 2003
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis -Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-17	Labor Standards for Construction Work--Facilities Contracts	FEB 1988
52.222-26	Equal Opportunity	APR 2002
52.223-6	Drug-Free Workplace	MAY 2001
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.228-8	Liability and Insurance - Leased Motor Vehicles	MAY 1999
52.232-23	Assignment Of Claims	JAN 1986
52.232-27	Prompt Payment for Construction Contracts	OCT 2003
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.242-14	Suspension of Work	APR 1984
52.242-15	Stop-Work Order	AUG 1989
52.242-17	Government Delay Of Work	APR 1984
52.243-1	Changes--Fixed Price	AUG 1987
52.243-5	Changes and Changed Conditions	APR 1984
52.246-21	Warranty of Construction	MAR 1994
52.249-1	Termination For Convenience Of The Government (Fixed Price) (Short Form)	APR 1984
52.249-10	Default (Fixed-Price Construction)	APR 1984

52.249-13	Failure To Perform	APR 1984
52.249-14	Excusable Delays	APR 1984
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense- Contract-Related Felonies	MAR 1999
252.204-7004 Alt A	Required Central Contractor Registration Alternate A	NOV 2003
252.217-7015	Safety and Health	DEC 1991
252.219-7011	Notification to Delay Performance	JUN 1998

CLAUSES INCORPORATED BY FULL TEXT

Successor Contracting Officers (52.201-4001)

The Contracting Officer who signed this contract is the primary Contracting Officer for the contract. Nevertheless, any Contracting Officer assigned to the Seattle District and acting within his/her authority may take formal action on this contract when a contract action needs to be taken and the primary Contracting Officer is unavailable.

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (JUN 2003)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: none.

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....
Domestic construction material...
Item 2			
Foreign construction material....
Domestic construction material...

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://farsite.hill.af.mil>

<http://www.dtic.mil/dfars>

(End of clause)

INDEX TO SHEETS

NO.	DESCRIPTION
	TITLE SHEET
1	PLAN AND PROFILE
2	GENERAL LAYOUT
3	ABUTMENT DETAILS
4	TYPICAL SECTION & ESTIMATED QUANTITIES
5	STEEL/TIMBER STRUCTURE DETAILS
6	TIMBER ALTERNATE TYPICAL SECTION & EST. QUANTITY
7	TIMBER ALTERNATE STEEL STRUCTURE DETAIL
8	CURB DETAILS
9	FIELD SPICE DETAILS
10	ROAD X-SECTION DETAILS
11	BORROW SITE



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION ONE

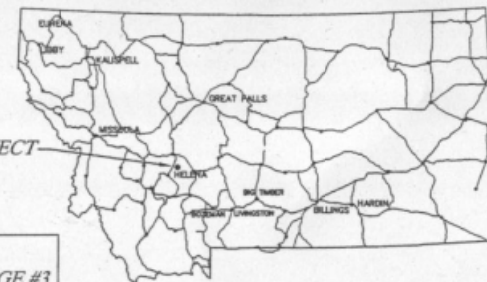


PLANS FOR PROPOSED BEAVER CREEK BRIDGE #3 BRIDGE NO. 138-11.0

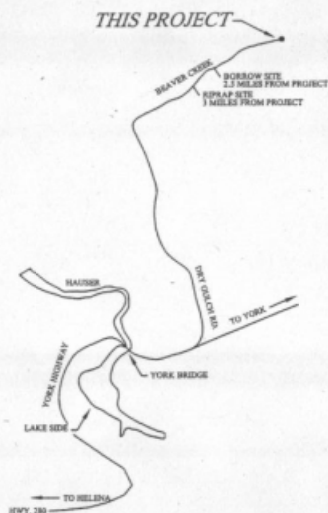
HELENA NATIONAL FOREST
HELENA RANGER DISTRICT
LEWIS & CLARK COUNTY, MONTANA

THIS PROJECT

THIS PROJECT
BEAVER CREEK BRIDGE #3



MONTANA INDEX MAP



GEOCELL INFILL
Commercial Source

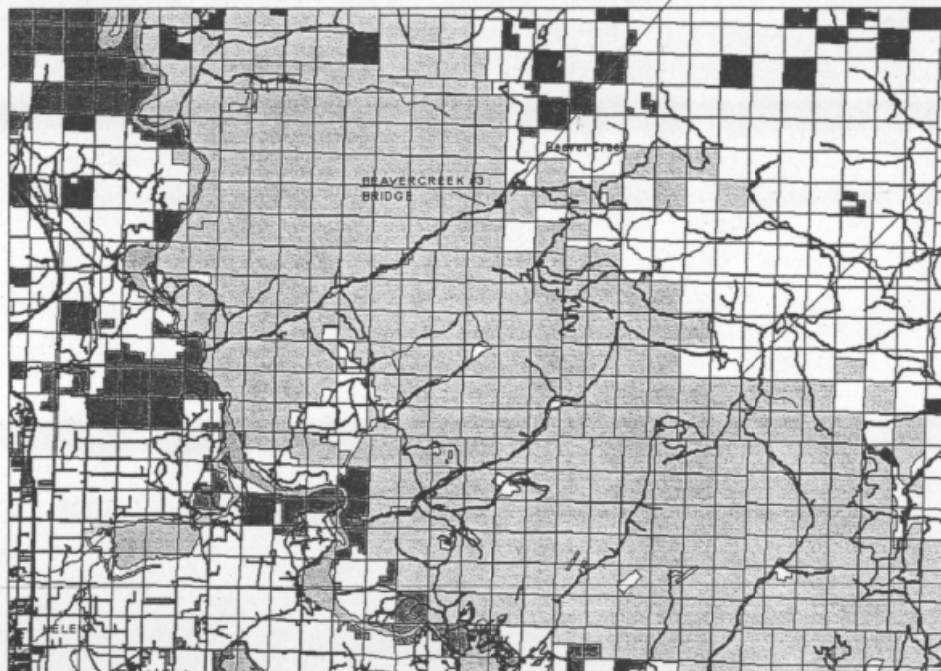
CRUSHED SURFACING
Commercial Source

EMBANKMENT MATERIAL

From Structural Excavation and source designated on site map

RIPRAP

From Structural Excavation and source designated on site map



VICINITY MAP

APPROVED:

DATE

DIRECTOR OF ENGINEERING
NORTHERN REGION

REVIEWED:

Chalison Plume DATE 3/31/03
FOREST ENGINEER
HELENA NATIONAL FOREST

RECOMMENDED:

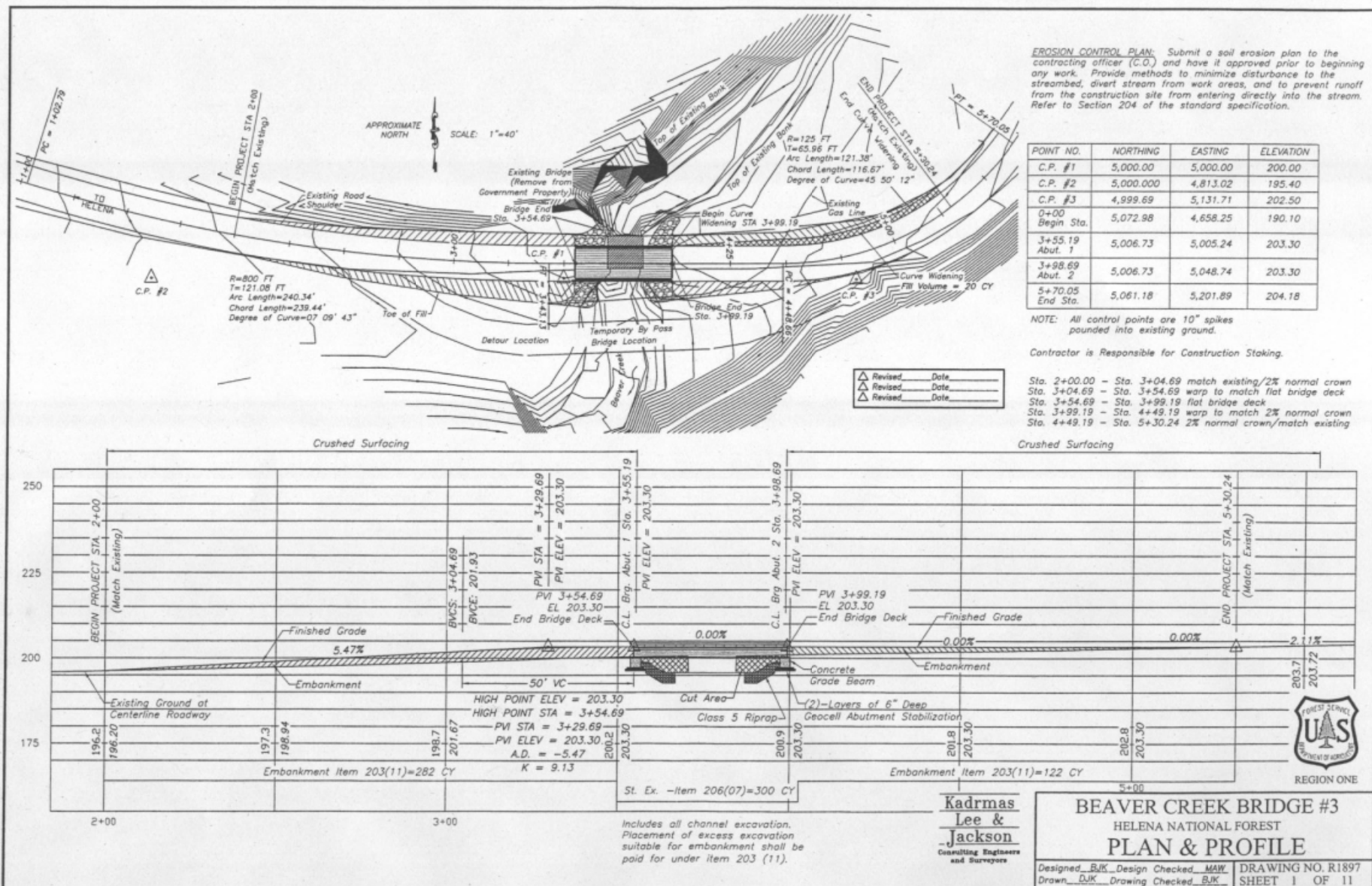
Diane J. Hays DATE 4-1-03
DISTRICT RANGER
HELENA NATIONAL FOREST

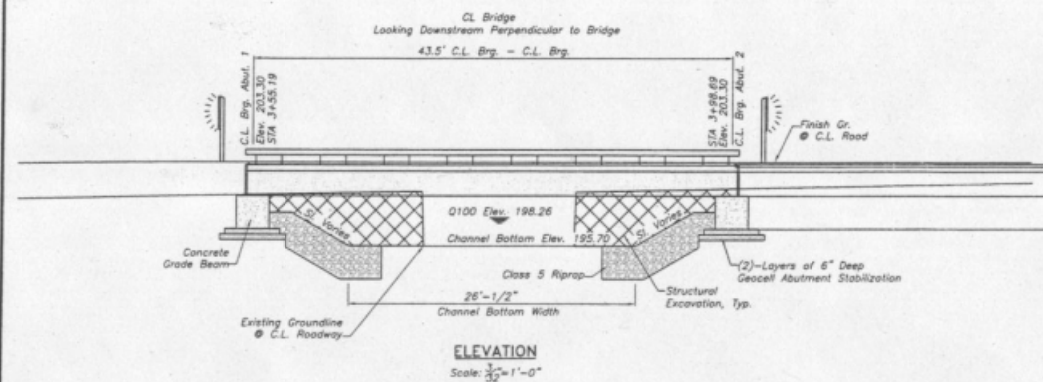
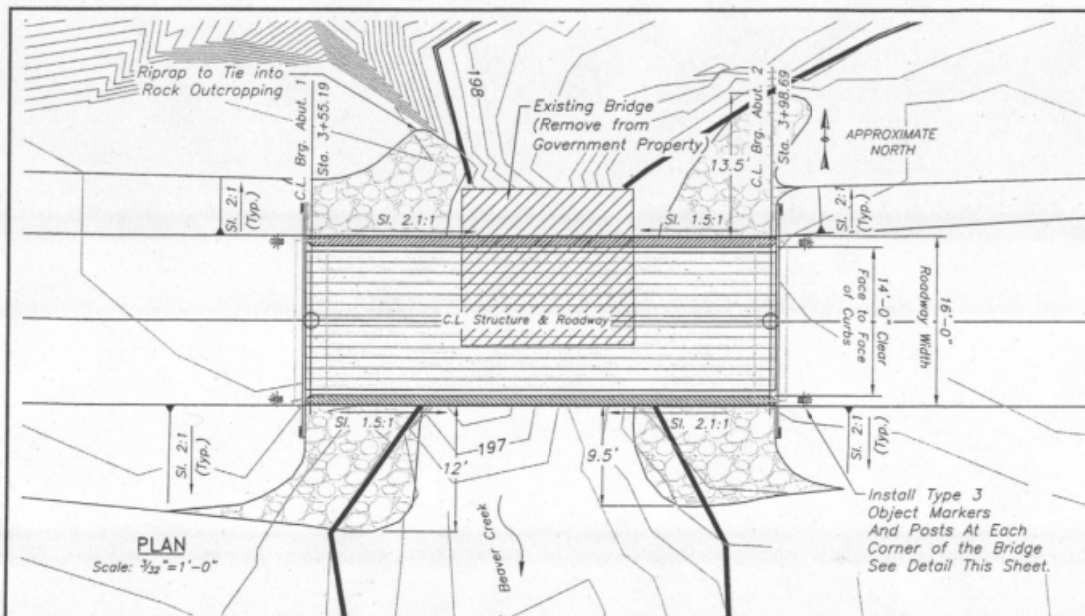
APPROVED:

Allen L. Christopher DATE 4-1-03
FOREST SUPERVISOR
HELENA NATIONAL FOREST



Kadmas Lee & Jackson
Consulting Engineers
and Surveyors





GENERAL NOTES

SPECIFICATIONS: Materials And Construction Of This Structure Shall Be In Accordance With The 1996 USDA - Forest Service Specifications For Construction Of Roads And Bridges, As Modified For This Contract.

DESIGN: This Structure Is Designed For HS20-44 Loading In Accordance With AASHTO Standard Specifications For Highway Bridges, 16th Edition, 1996 Plus 1997, 1998 And 1999 Interim.

HYDROLOGY AND HYDRAULICS: This Structure Is Designed To Pass A 100-Year Frequency Flood With Two Feet Of Minimum Freeboard. The Design Volumes Are As Follows:

$$Q_{100} = 496 \text{ CFS}, Q_2 = 84 \text{ CFS}$$

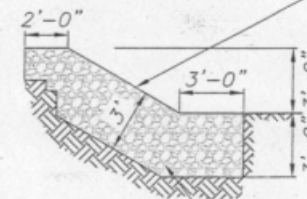
CONCRETE: All Concrete Shall Be CLASS A Concrete, $f'_c = 4000$ Psi At 28 Days. Concrete Shall Be Given A CLASS 1 "Ordinary Surface Finish". Concrete Shall Be Air Entrained $5\% \pm 1\%$.

All Concrete Shall Be Made In Accordance With An Approved Mix Design. Chamfer All Exposed Edges Of Concrete And Fillet All Re-Entrant Angles $\frac{3}{4}''$ Unless Noted Otherwise.

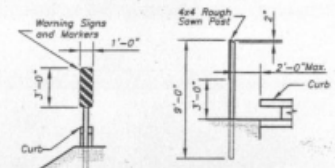
REINFORCING STEEL: All Reinforcing Shall Be Of The Deformed Bar Type Conforming To AASHTO M31 (ASTM A615), Grade 60. Concrete Clear Cover Shall Be 2" Unless Shown Otherwise On The Plans. Bending And Splicing Of Reinforcement Shall Be In Accordance With ACI 318-89.

Install Type 3 Object Markers And Posts At Each Corner Of The Bridge See Detail This Sheet.

Slope Varies: 1.5:1 to 2.1:1
Max Allowable Slope = 1.5:1



Class 5 Riprap



OBJECT MARKER TYPE 3 INSTALLATION Not to Scale

OBJECT MARKERS: TYPE 3 OBJECT MARKERS SHALL BE 12" x 36" AND COLORED YELLOW AND BLACK. MATERIAL SHALL MEET MUTCD OM-3L OR OM-3R SPECIFICATIONS. FASTEN TO POST W/(2)-1/4" MACHINE BOLTS W/WASHERS. FIELD DRILL BOLT HOLES. INSTALL POSTS SUCH THAT THE INSIDE EDGE OF THE REFLECTORIZED PANEL IS IN LINE WITH THE INSIDE EDGE OF THE CURB.

Revised	Date
Revised	Date
Revised	Date

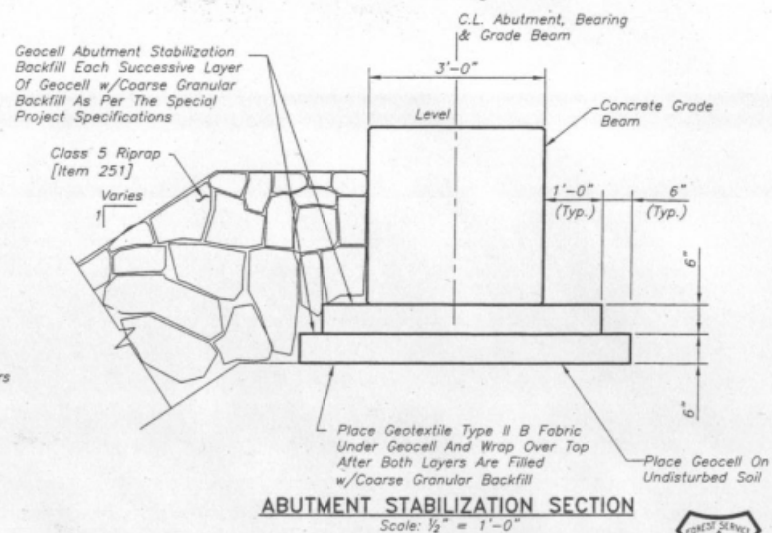
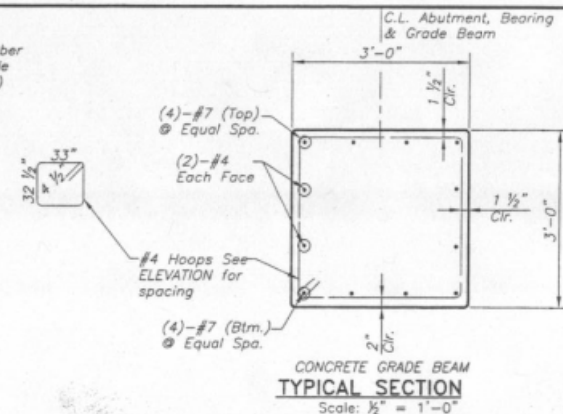
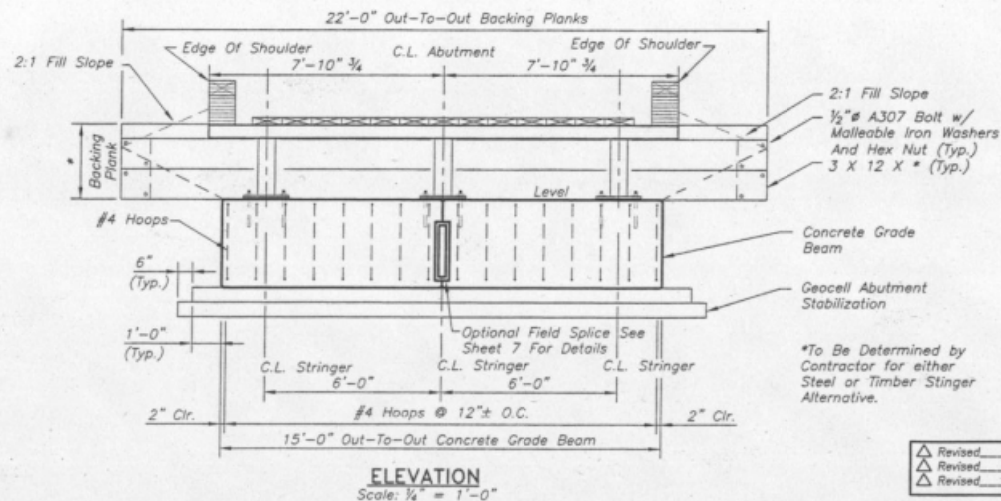
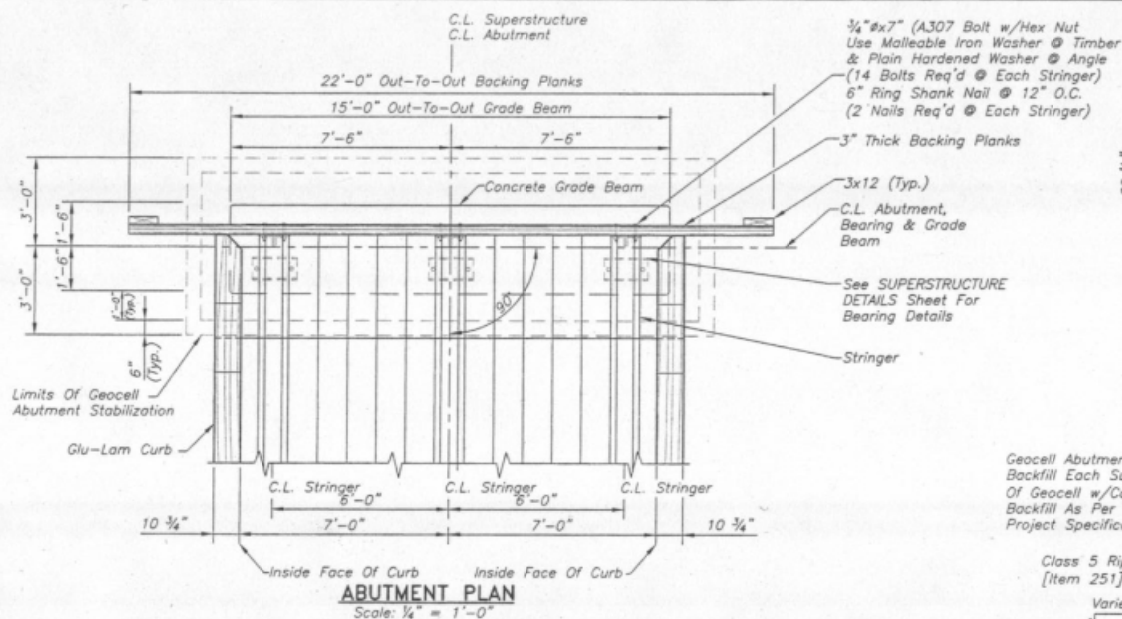


REGION ONE

BEAVER CREEK BRIDGE #3 HELENA NATIONAL FOREST GENERAL LAYOUT

**Kadmas
Lee &
Jackson**
Consulting Engineers
and Surveyors

Designed B.K. Design Checked MAW DRAWING NO. R1897
Drawn D.K. Drawing Checked B.K. SHEET 2 OF 11



NOTES:

- 1) Grade Beam May Be Either Precast or Cast-in Place. If Precast, See Sheet 7 for Field Splice Details

Kadmas
Lee & Jackson
Consulting Engineers and Surveyors

BEAVER CREEK BRIDGE #3 HELENA NATIONAL FOREST ABUTMENT DETAILS

Designed BJK Design Checked MAW DRAWING NO. R1897
Drawn DJK Drawing Checked BJK SHEET 3 OF 11



REGION ONE

STEEL SUPERSTRUCTURE NOTES

LUMBER: Backing Plank And Running Plank Shall Be Rough Sawn And Shall Be Coastal Region Douglas Fir No. 2 Grade Or Better, Conforming To Current WPA Grading Rules For Western Lumber Or Current WCLIB Standard Grading Rules For Western Coast Lumber.

GLUED-LAMINATES: Deck Panels, Curbs And Curb Blocks Shall Be Glued-Laminated Members Of Coast Region Douglas Fir Conforming To The American Institute Of Timber Construction (AITC) 117-93, Combination Symbols 3, 4, Or 5. Members Shall Be Manufactured For Wet Condition Use And Industrial Appearance.

TREATMENT: After Fabrication, All Lumber Shall Be Incised And Pressure Treated In Accordance With AWP C-2 (Soil & Fresh Water Use), For Solid Sawn Members And C-2B (Soil Contact), For Glued-Laminates Using:

- Pentachlorophenol Meeting AWP P-8, Using AWP P-9 Type A Solvent.
- Creosote Meeting AWP P-1.
- Copper Naphthenate Meeting AWP P-8, Using AWP P-9 Type A Solvent Containing A Minimum Of 2% Copper Metal.

Treatment Will Comply With The Requirements Of The Current Edition Of WWPI's Best Management Practices For The Use Of Treated Wood In Aquatic Environments.

FIELD TREATMENT: Copper Naphthenate (2% Solution) Shall Be Furnished For Field Treating Of Wood. All Abrasions And Field Cuts - Approved By The C.O. - Shall Be Carefully Trimmed And Given Three Brush Coats Of The Field Treatment Solution. Holes Drilled In The Field Shall Be Poured Full Of Preservative And Plugged With Tight Fitting, Treated, Hardwood Dowels.

INSPECTION AND CERTIFICATION: The Following Compliance Certificates Shall Be Furnished Upon Delivery:

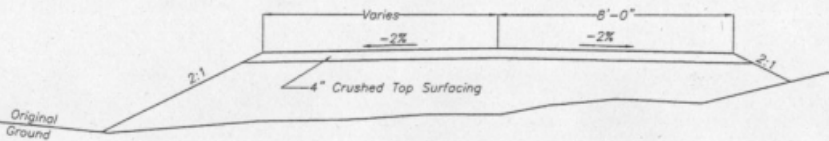
- Supplier Certification, From A WPA Or WCLIB Approved Supplier, That All Wood Materials Meet Requirements As To Species And Grade.
- Certification Of Preservative, Penetration In Inches, And Retention In Pounds Per Cubic Foot (Assay Method) By Either A Qualified Testing And Inspection Agency Or Supplier Certification. Supplier Certification Requires Each Solid Piece To Be Stamped Or Branded With The ALSC Quality Mark.
- Certification From A Qualified Inspection And Testing Agency Indicating Conformance Of All Glued-Laminated Members With AITC 117-93.
- Supplier Certification That All Treated Wood Materials Were Treated In Accordance With And Meet The Requirements Of WWPI's Best Management Practices For The Use Of Treated Wood In Aquatic Environments.

HARDWARE AND STRUCTURAL STEEL: All Structural Steel Shall Be AASHTO M270, Grade 50W, (ASTM 709, Grade 50) Weathering Steel. All Structural Steel Fasteners Shall Be A325, Type 3, Bolts. All Other Bolts And Nuts Shall Conform To A307, And Need Not Be Galvanized. Use Malleable Iron Washers Against Wood.

STEEL FABRICATION: Submit Shop Drawings For All Structural Steel Elements. All Welding Shall Be In Accordance With AWS D1.5, Bridge Welding Code. All Electrodes Shall Be E70XX. Steel Stringers Shall Be Cambered 1".

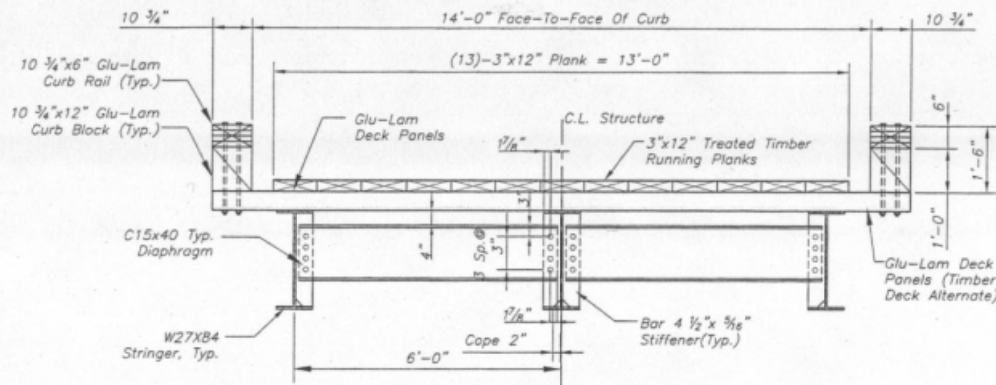
OPTIONAL PREFABRICATED STEEL SUPERSTRUCTURE:

A Prefabricated Steel Bridge Superstructure May Be Substituted For The Superstructure Design Shown. See Special Provisions For Design And Submittal Requirements.



TYPICAL ROAD SECTION

Scale: 1/4" = 1'-0"



TYPICAL DECK SECTION

Scale: 3/8" = 1'-0"

INFORMATIONAL ONLY - NOT FOR BIDDING PURPOSES - REFER TO BID SCHEDULE

ESTIMATED QUANTITIES (Steel Alternate)			
SPECIFICATION SECTION	DESCRIPTION	UNIT	QUANTITY
170	STAKING MAJOR STRUCTURES	LS	1
202	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
203	EMBANKMENT PLACEMENT METHOD 3	CY	404
204	STRAW/HAY BALES	EA	30
204	SOIL EROSION AND POLLUTION CONTROL	LS	1
206	STRUCTURAL EXCAVATION	CY	300
251	PLACED RIPRAP, CLASS 5, METHOD A	CY	150
260	GEOCELL ABUTMENT STABILIZATION, 6 INCH DEPTH	SY	43
304	CRUSHED AGGREGATE, TYPE SURFACING, GRADING G, COMPACTION B	CY	65
552	STRUCTURAL CONCRETE, CLASS A(AE)	CY	11
554	REINFORCING STEEL	LB	804
560	BRIDGE SUPERSTRUCTURE (Steel Alternate)		
555	STRUCTURAL STEEL	LB	13,434
557	TREATED STRUCTURAL TIMBER AND LUMBER	MBF	1,736
557	TREATED STRUCTURAL TIMBER, GLUED-LAMINATED	MBF	4,504
601	MOBILIZATION	LS	1
633	WOOD POSTS	LF	32
633	OBJECT MARKERS	EA	4
637	HYDRAULIC EXCAVATOR WITH THUMB, MINIMUM 150 FLYWHEEL HP	HR	16

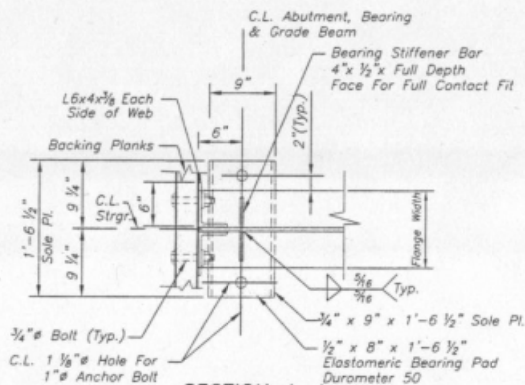


REGION ONE

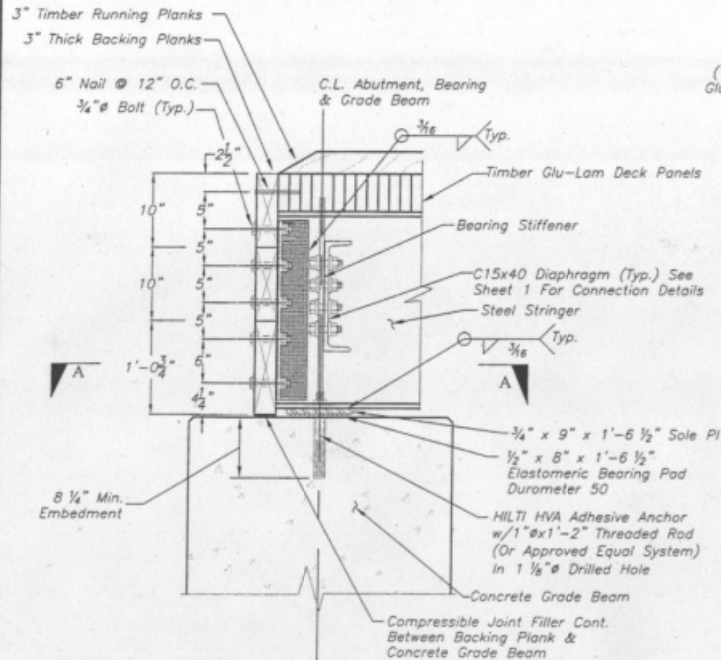
Kadrmass
Lee &
Jackson
Consulting Engineers
and Surveyors

BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST
TYPICAL SECTION &
ESTIMATED QUANTITIES

Designed BJK Design Checked MAR
Drawn DJK Drawing Checked BJK
DRAWING NO. R1897
SHEET 4 OF 11



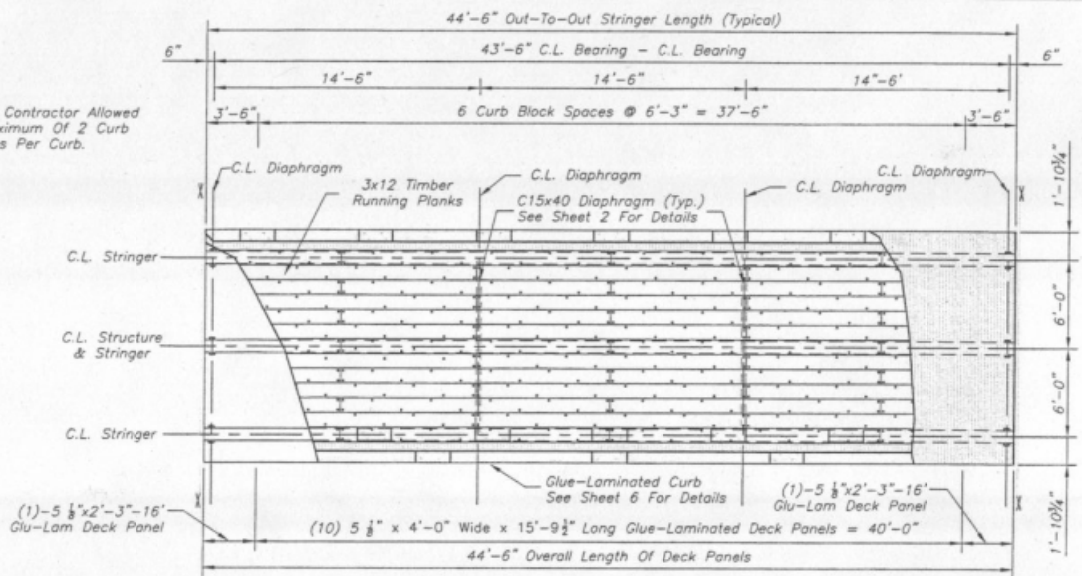
SECTION A-A



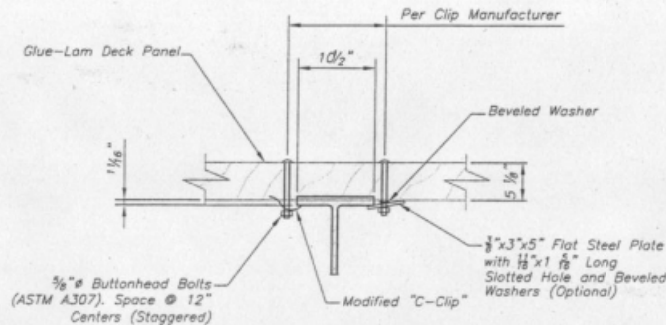
BEARING DETAIL

Scale: 1/4" = 1'-0"

Note: Contractor Allowed
A Maximum Of 2 Curb
Splices Per Curb.



SUPERSTRUCTURE PLAN



TYPICAL DECK TO BEAM
CONNECTION DETAIL

Scale: 1/4" = 1'-0"

△	Revised	Date
△	Revised	Date
△	Revised	Date

**Kadmas
Lee &
Jackson**
Consulting Engineers
and Surveyors

- Note:
1. Fasten Timber Deck Panels To Stringers w/ "C"-Clip, Flat Steel Plate, Or Approved Equal. Submit For Review Prior To Fabrication.
 2. Fasten Running Planks To Timber Deck With Two Rows Of 6" Ring Shank Nails Per Plank @ 24"± Centers. Alternate Centers With Nails At Each End Of Plank.
 3. Prebore Deck And Running Plank Spike Lead Holes Using A Hole Equal To 75% Of Spike Diameter. Treat Hole With Copper Naphthenate (2% Solution) Before Placing Spike.



REGION ONE

BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST

STEEL STRUCTURE DETAILS

Designed BJK Design Checked MAW DRAWING NO. R1897
Drawn DJK Drawing Checked BJK SHEET 5 OF 11

TIMBER SUPERSTRUCTURE NOTES

LUMBER: All Members Shall Be Full Sawn, Except Where Noted Otherwise. All Timber And Lumber Shall Be Coastal Region Douglas-Fir No. 1 Grade Or Better, Except Running Planks (No. 2), Conforming To Current WPA Grading Rules For Western Lumber Or Current WCLIB Standard Grading Rules For Western Coast Lumber. Inland Douglas-Fir Lumber Shall Not Be Used On This Project.

GLUED-LAMINATES: Stringers, Deck Panels, Curbs And Curb Blocks Shall Be Glued-Laminated Members Of Coast Region Douglas-Fir Conforming To The American Institute Of Timber Construction (AIRC) 117-93 And Shall Be Manufactured For Wet Condition Use And Industrial Appearance.

Member	Combination Symbol
Stringers & Diaphragms	24F-V4
Deck Panels	3, 4 Or 5
Curb & Curb Blocks	3, 4 Or 5

Glued-Laminated Members Fabricated From Inland Douglas-Fir Lumber Shall Not Be Used On This Project.

TREATMENT: After Fabrication, All Lumber Shall Be Incised And Pressure Treated In Accordance With AWPA C-2 (Soil & Fresh Water Use), For Solid Sawn Members And C-28 (Soil Contact), For Glued-Laminates Using:

- Pentachlorophenol Meeting AWPA P-8, Using AWPA P-9 Type A Solvent.
- Creosote Meeting AWPA P-1.
- Copper Naphthenate Meeting AWPA P-8, Using AWPA P-9 Type A Solvent Containing A Minimum Of 2% Copper Metal.

Treatment Will Comply With The Requirements Of The Current Edition Of WWP's Best Management Practices For The Use Of Treated Wood In Aquatic Environments.

FIELD TREATMENT: Copper Naphthenate (2% Solution) Shall Be Furnished For Field Treating Of Wood. All Abrasions And Field Cuts - Approved By The C.O. - Shall Be Carefully Trimmed And Given Three Brush Coats Of The Field Treatment Solution. Holes Drilled In The Field Shall Be Poured Full Of Preservative And Plugged With Tight Fitting, Treated, Hardwood Dowels.

INSPECTION AND CERTIFICATION: The Following Compliance Certificates Shall Be Furnished Upon Delivery:

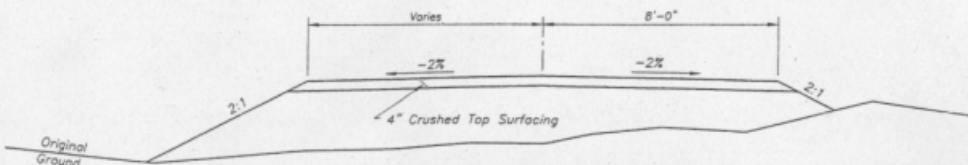
- Supplier Certification, From A WPA Or WCLIB Approved Supplier, That All Wood Materials Meet Requirements As To Species And Grade.
- Certification Of Preservative, Penetration In Inches, And Retention In Pounds Per Cubic Foot (Assay Method) By Either A Qualified Testing And Inspection Agency Or Supplier Certification. Supplier Certification Requires Each Solid Piece To Be Stamped Or Branded With The ALSC Quality Mark.
- Certification From A Qualified Inspection And Testing Agency Indicating Conformance Of All Glued-Laminated Members With AIRC 117-93.
- Supplier Certification That All Treated Wood Materials Were Treated In Accordance With And Meet The Requirements Of WWP's Best Management Practices For The Use Of Treated Wood In Aquatic Environments.

HARDWARE AND STRUCTURAL STEEL: Structural Steel And Hardware Shall Meet The Requirements Of AASHTO M270 Grade 36, And Need Not Be Galvanized Or Coated. Bolts And Nuts Shall Conform To A307, Except Where Noted Otherwise, And Need Not Be Galvanized. Use Malleable Iron Washers Against Wood, Except Where Noted Otherwise. All Drift Pins Shall Have Their Ends Ground Round.

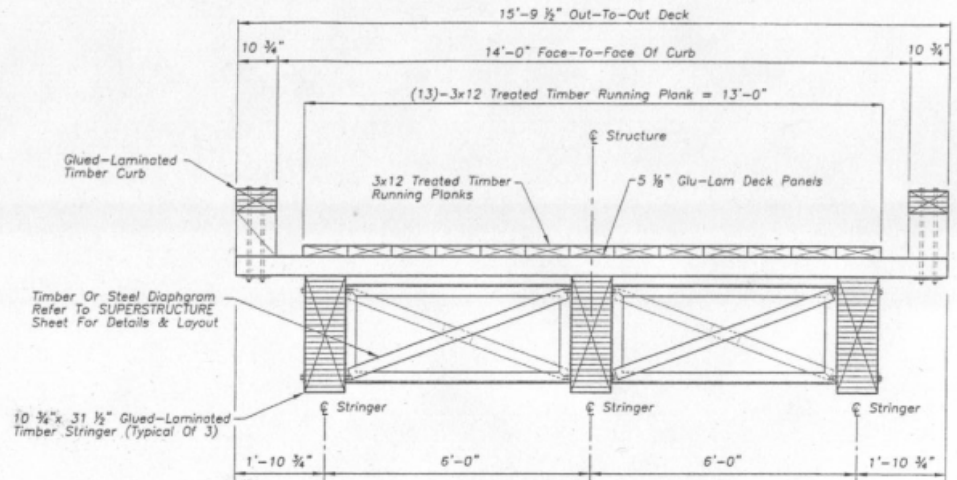
FABRICATION: Submit Shop Drawings For All Treated Timber (Except Running Planks). Show All Dimensions And Fabrication Details For All Cut Or Bored Timber. Field Drilling Of Holes Shall Not Be Allowed Unless Otherwise Noted On The Drawings. Timber Stringers Shall Be Cambered 1".

INSTALLATION OF GLUED-LAMINATED BEAMS: Beams Shall Be Erected Using Galvanized Steel Shims Where Necessary. Steel Shims Shall Be The Same Size As The Elastomeric Bearing Pads And Shall Be Placed Between The Beams And The Pads Such That No More Than 1/8" Vertical Variation Exists Between Adjacent Beam Top Surfaces.

ELASTOMERIC BEARING PADS: Bearing Pads Shall Be Plain Elastomeric Pad 1/2" Thick, 70 Durometer, Low Temperature, Zone D.



TYPICAL ROAD SECTION
Scale: 1/4" = 1'-0"



TYPICAL DECK SECTION
Shown w/Steel Diaphragm Scale: 3/8" = 1'-0"

INFORMATIONAL ONLY - NOT FOR BIDDING PURPOSES - REFER TO BID SCHEDULE

ESTIMATED QUANTITIES (Timber Alternate)

SPECIFICATION SECTION	DESCRIPTION	UNIT	QUANTITY
170	STAKING MAJOR STRUCTURES	LS	1
202	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
203	EMBANKMENT PLACEMENT METHOD 3	CY	404
204	STRAW/HAY BALES	EA	30
204	SOIL EROSION AND POLLUTION CONTROL	LS	1
206	STRUCTURAL EXCAVATION	CY	300
251	PLACED RIPRAP, CLASS 5, METHOD A	CY	150
260	GEOCELL ABUTMENT STABILIZATION, 6 INCH DEPTH	SY	43
304	CRUSHED AGGREGATE, TYPE SURFACING, GRADING G, COMPACTION B	CY	65
552	STRUCTURAL CONCRETE, CLASS A(AE)	CY	11
554	REINFORCING STEEL	LB	804
560	BRIDGE SUPERSTRUCTURE (Timber Alternate)		
557	TREATED STRUCTURAL TIMBER AND LUMBER	MBF	1.75
557	TREATED STRUCTURAL TIMBER, GLUED-LAMINATED	MBF	8.64
601	MOBILIZATION	LS	1
633	WOOD POSTS	LF	32
633	OBJECT MARKERS	EA	4
637	HYDRAULIC EXCAVATOR WITH THUMB, MINIMUM 150 FLYWHEEL HP	HR	16

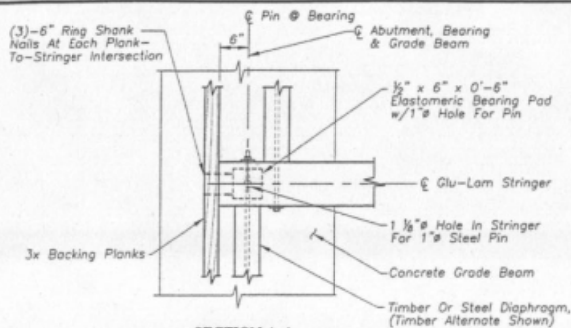
* Estimated Quantity Assumes Glued-Laminated Diaphragms Are Used. If The Steel Diaphragm Alternate Is Used, All Associated Costs Will Be Included In The Unit Price Bid For BRIDGE SUPERSTRUCTURE.

Revised Date
Revised Date
Revised Date



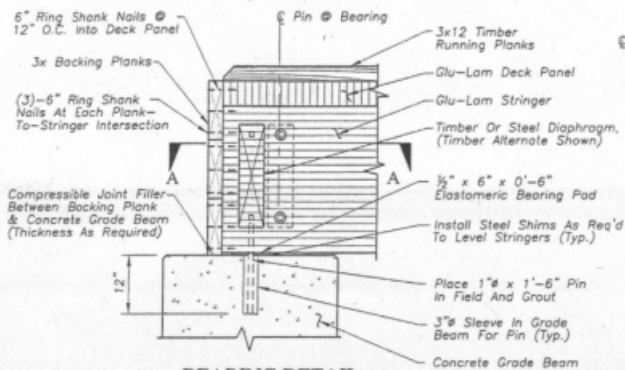
BEAVER CREEK BRIDGE #3 HELENA NATIONAL FOREST TYPICAL SECTION & ESTIMATED QUANTITIES

Designed JBK Design Checked DKS
Drawn DKS Drawing Checked JBK
DRAWING NO. R1897
SHEET 6 OF 11



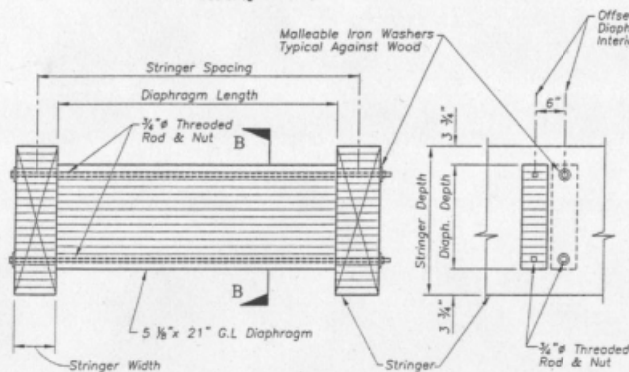
SECTION A-A

Scale: 1/2" = 1'-0"



BEARING DETAIL

Scale: 1/2" = 1'-0"

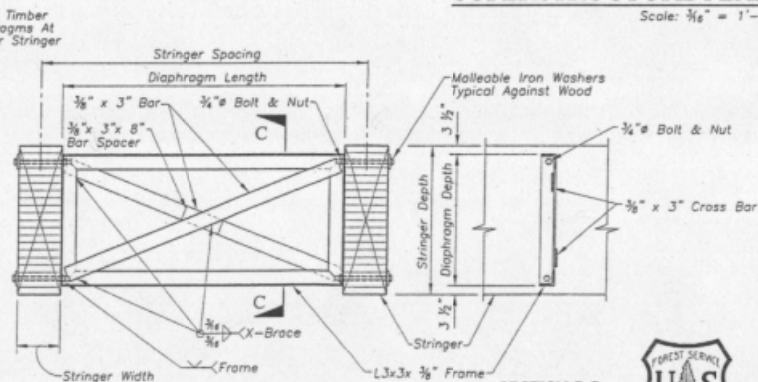


ELEVATION

GLUED-LAMINATED DIAPHRAGM ALTERNATE

Scale: 1/2" = 1'-0"

SECTION B-B

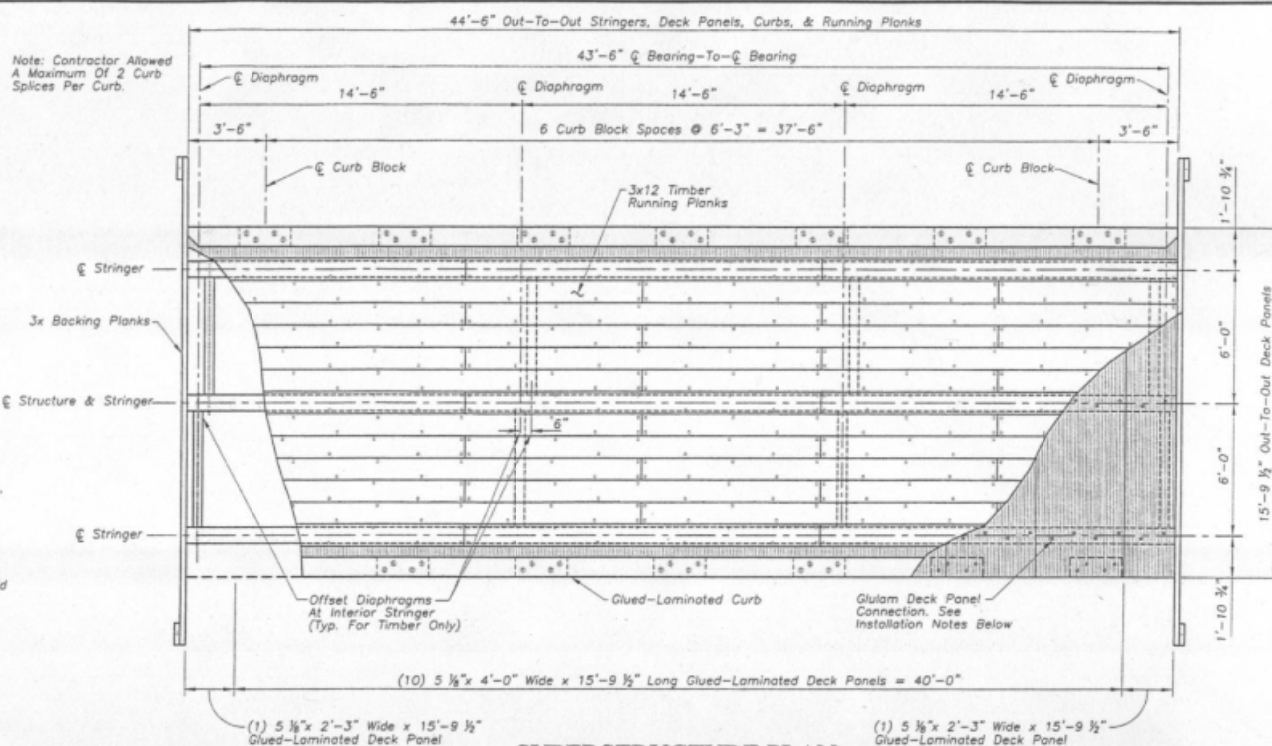


SECTION C-C

STEEL DIAPHRAGM ALTERNATE

Scale: 1/2" = 1'-0"

Note: Contractor Allowed A Maximum Of 2 Curb Splices Per Curb.



SUPERSTRUCTURE PLAN

Scale: 3/16" = 1'-0"

DECK PANEL AND RUNNING PLANK INSTALLATION

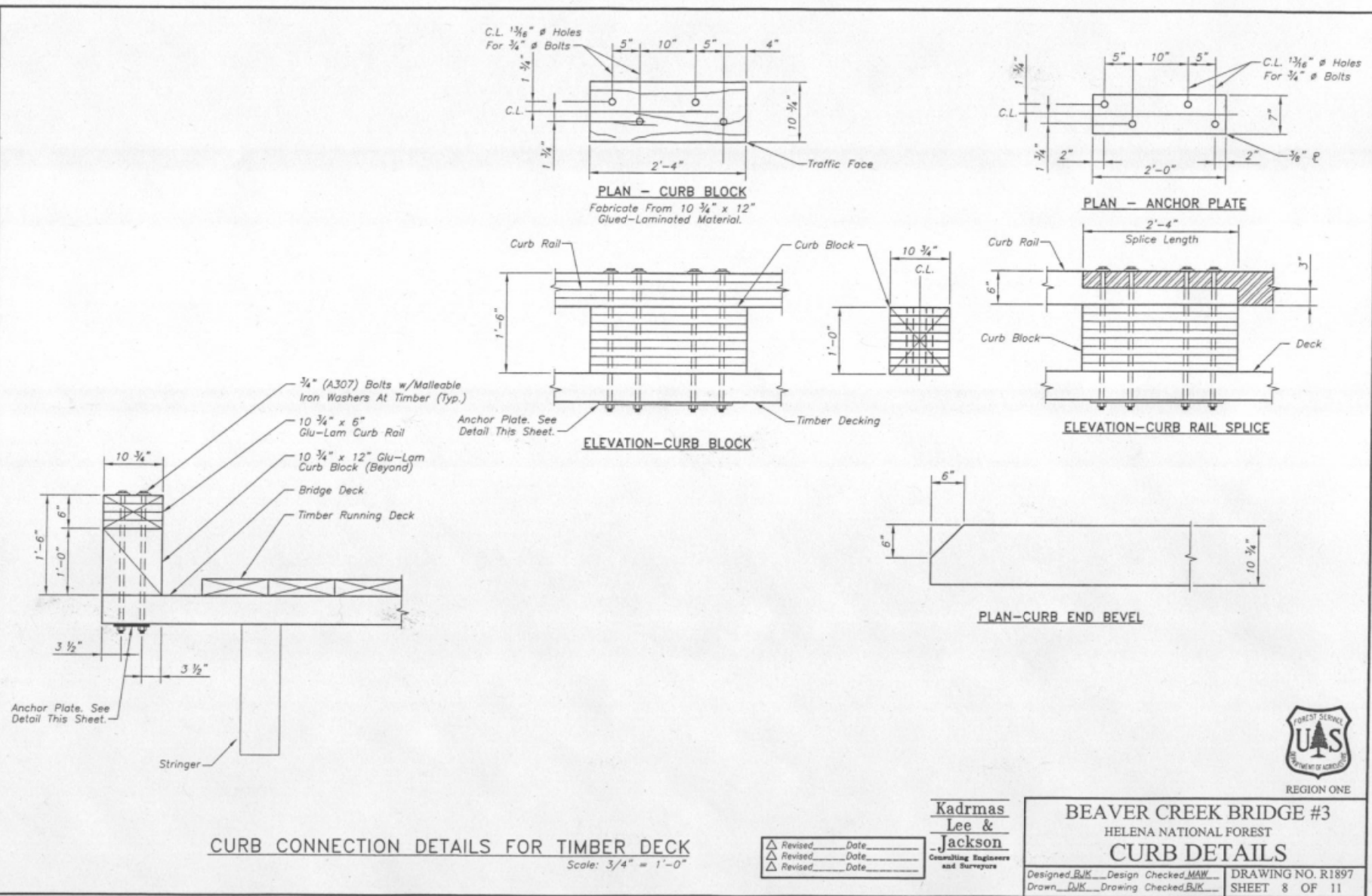
1. Fasten Deck Panels To Stringers w/10" Ring Shank Nails @ 12" Centers, Alternate Centers 1 1/2' Each Side Of Stringer Centerline.
2. Fasten Running Planks To Timber Deck With Two Rows Of 6" Ring Shank Nails Per Plank @ 24" Centers, Alternate Centers With Nails At Each End Of Plank.
3. Prebore Deck And Running Plank Spike Lead Holes Using A Hole Equal To 75% Of Spike Diameter. Treat Hole With Copper Naphthenate (2% Solution) Before Placing Spike.

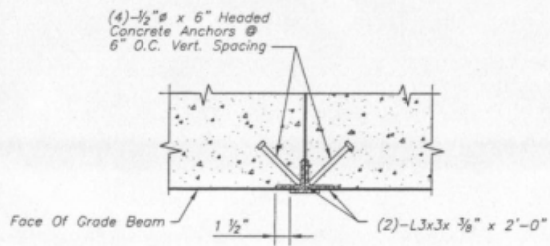
Revised _____ Date _____
Revised _____ Date _____
Revised _____ Date _____



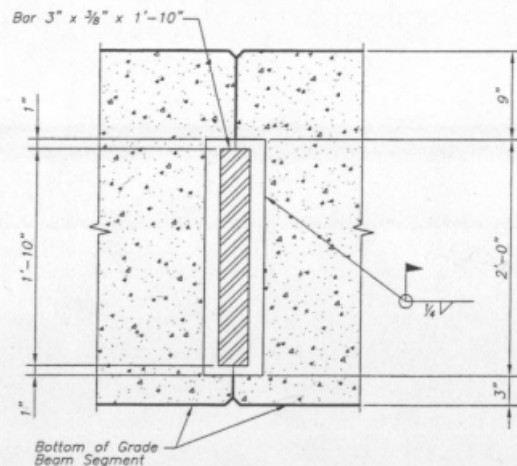
BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST
TIMBER STRUCTURE DETAILS

Designed: JRK Design Checked: DKS
Drawn: DKS Drawing Checked: JRK
DRAWING NO. R1897
SHEET 7 OF 11

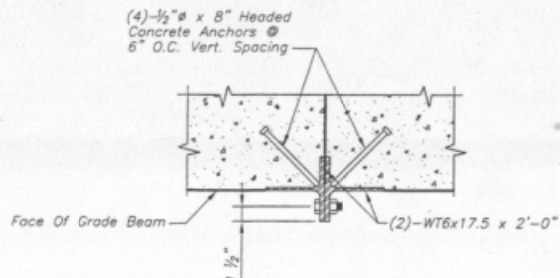




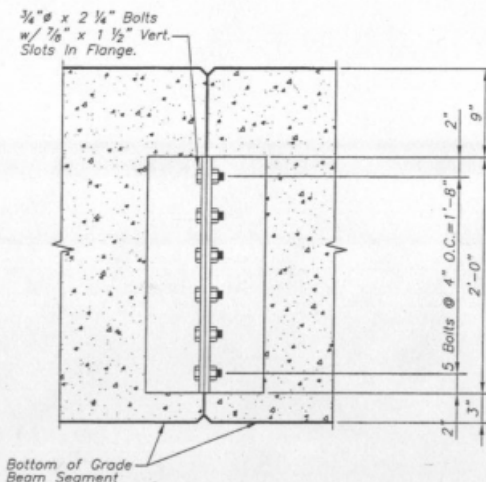
PLAN SECTION



ELEVATION
FIELD WELD ALTERNATE



PLAN SECTION



ELEVATION
FIELD BOLT ALTERNATE

PRECAST GRADE BEAM
OPTIONAL FIELD SPLICE DETAILS
Scale: 1" = 1'-0"

Revised	Date
Revised	Date
Revised	Date

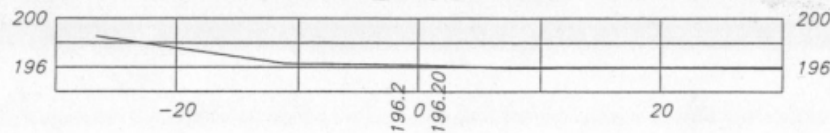
Kadmas
Lee &
Jackson
Consulting Engineers
and Surveyors

BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST
FIELD SPLICE DETAILS

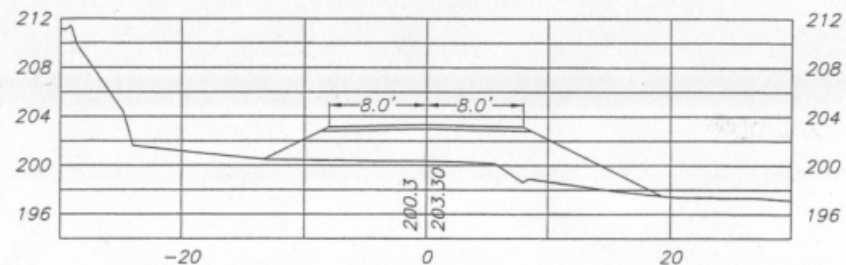
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Drawn_DJK_Drawing Checked_BJK
DRAWING NO. R1897
SHEET 9 OF 11



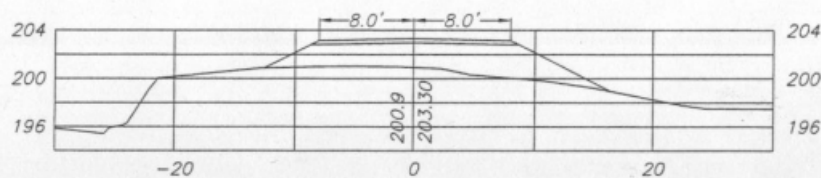
Match Existing
2+00



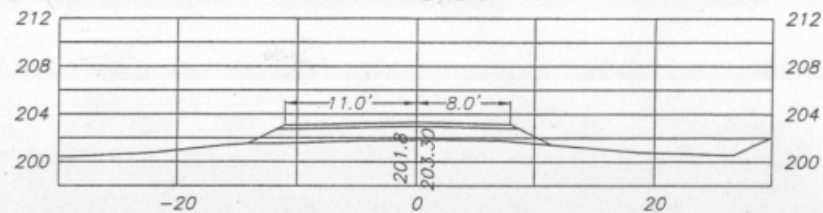
Bridge End
3+54.69



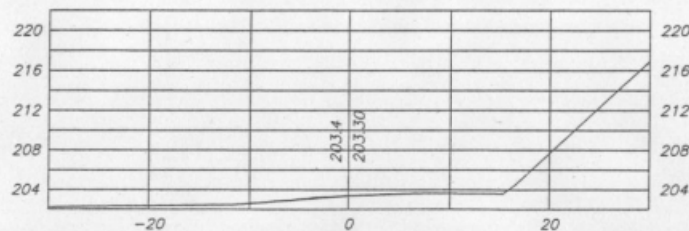
Begin Curve Widening
Bridge End
3+99.19



Curve Widening Transition
4+48.66



Match Existing
End Curve Widening
5+30.24



Revised _____ Date _____
Revised _____ Date _____
Revised _____ Date _____

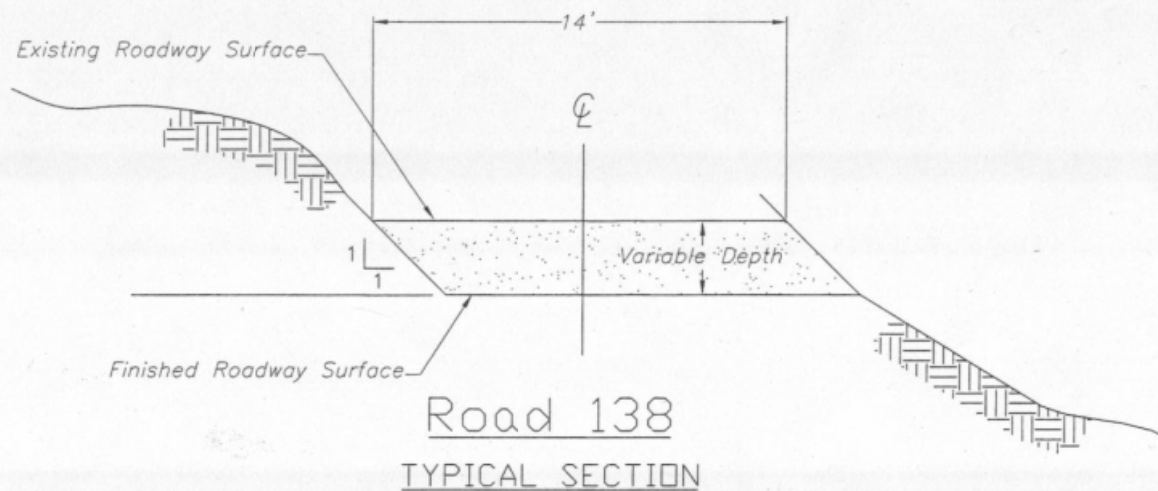


REGION ONE

Kadmas
Lee &
Jackson
Consulting Engineers
and Surveyors

BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST
ROAD CROSS SECTIONS

Designed BJK Design Checked MAW DRAWING NO. R1897
Drawn DJK Drawing Checked BJK SHEET 10 OF 11



NOTES: FINISHED SURFACE ROAD 138

1. Road Width is 14'
2. Inslope of 2%
3. After borrow material is removed the roadway shall be finished in accordance with specification 306. Payment incidental to embankment, item 203 (11)

△	Revised	_____	Date	_____
△	Revised	_____	Date	_____
△	Revised	_____	Date	_____



REGION ONE

Kadmas
Lee &
Jackson
Consulting Engineers
and Surveyors

BEAVER CREEK BRIDGE #3
HELENA NATIONAL FOREST
BORROW SITE DETAIL

Designed BJK Design Checked MAW DRAWING NO. R1897
Drawn DK Drawing Checked BJK SHEET 11 OF 11

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